KerrMcGee

Kerr-McGee Oil & Gas Onshore LP
1999 Broadway, Suite 3700
Denver, CO 80205

November 24, 2008

Ms. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 921-10G2S
T9S- R21E
Section 10: SWNE
835' FNL, 1824' FWL (surface)
SWNE 1340' FNL, 2462' FEL (bottom hole)
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 921-10G2S is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Lynn Padgett
Staff Landman

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
UTU-0141315

6. If Indian, Allotee or Tribe Name
Ute Tribe

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
UTU-63047A

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☐ Single Zone ☑ Multiple Zone

8. Lease Name and Well No.
NBU 921-10G2S

2. Name of Operator
Kerr-McGee Oil & Gas Onshore, LP

9. API Well No.
43-047-40424

3a. Address
P.O. Box 173779, Denver, CO 80217-3779

3b. Phone No. *(include area code)*
720.929.6226

10. Field and Pool, or Exploratory
Natural Buttes Field

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NENW 835' FNL & 1824' FWL LAT 40.055628 LON -109.540147
At proposed prod. zone SWNE 1340' FNL & 2462' FEL LAT 40.054236 LON -109.536572

11. Sec., T. R. M. or Blk. and Survey or Area
Sec. 10, T 9S, R 21E

14. Distance in miles and direction from nearest town or post office*
21.25 miles northwest of Ouray, Utah

12. County or Parish
Uintah

13. State
UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
835'	800	Unit Well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
20'	10654'	WYB000291
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
4,706' GL		10 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
	Kevin McIntyre	11/14/2008

Title
Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
		12-08-08
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

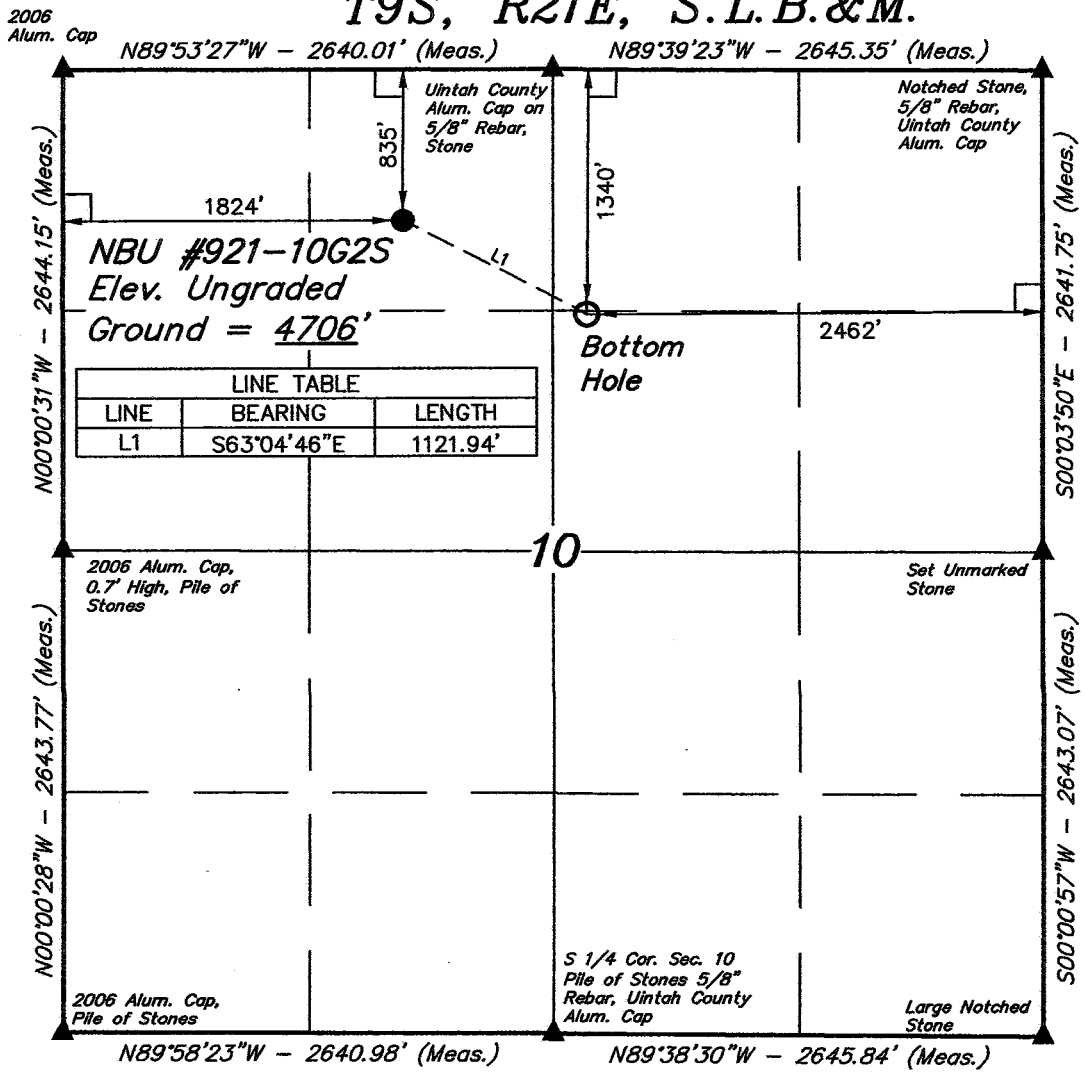
*(Instructions on page 2)

Surf
624517X
44347364
40.055574
-109.540153

BHL
624827x
4434588
40.054197
-109.536543

RECEIVED
DEC 01 2008
DIV. OF OIL, GAS & MINING

T9S, R21E, S.L.B.&M.



LINE TABLE		
LINE	BEARING	LENGTH
L1	S63°04'46"E	1121.94'

Kerr-McGee Oil & Gas Onshore LP

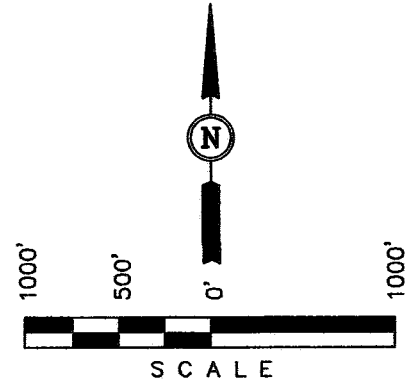
Well location, NBU #921-10G2S, located as shown in the NE 1/4 NW 1/4 of Section 10, T9S, R21E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REGISTERED LAND SURVEYOR REGISTRATION NO. 161319 STATE OF UTAH ROBERT L. KAY

LEGEND:

- ∟ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 40°03'15.12" (40.054200)	LATITUDE = 40°03'20.13" (40.055592)
LONGITUDE = 109°32'14.14" (109.537261)	LONGITUDE = 109°32'27.01" (109.540836)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 40°03'15.25" (40.054236)	LATITUDE = 40°03'20.26" (40.055628)
LONGITUDE = 109°32'11.66" (109.536572)	LONGITUDE = 109°32'24.53" (109.540147)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	08-14-08	08-19-08
PARTY	**REFERENCES**	
D.S. E.D. C.C.	G.L.O. PLAT	
WEATHER	**FILE**	
HOT	Kerr-McGee Oil & Gas Onshore LP	

NBU 921-10G2S
Twin to NBU #252
NENW Sec. 10, T9S,R21E
UINTAH COUNTY, UTAH
UTU-0141315

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. **Estimated Tops of Important Geologic Markers:**

Formation	Depth
Uinta	0- Surface
Green River	1793'
Bird's Nest	2128'
Mahogany	2632'
Wasatch	5195'
Mesaverde	8180'
MVU2	9098'
MVL1	9595'
TVD	10,400'
TD	10,654'

2. **Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

Substance	Formation	Depth
	Green River	1793'
	Bird's Nest	2128'
	Mahogany	2632'
Gas	Wasatch	5195'
Gas	Mesaverde	8180'
Gas	MVU2	9098'
Gas	MVL1	9595'
Water	N/A	
Other Minerals	N/A	

3. **Pressure Control Equipment** (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

4. **Proposed Casing & Cementing Program:**

Please see the Natural Buttes Unit SOP. See attached drilling diagram.

5. **Drilling Fluids Program:**

Please see the Natural Buttes Unit SOP.

6. **Evaluation Program:**

Please see the Natural Buttes Unit SOP.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 10,654' TD, approximately equals 6605 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4261 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please see Natural Buttes Unit SOP Onshore Order #2 – Air Drilling Variance
Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at

40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors

(see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

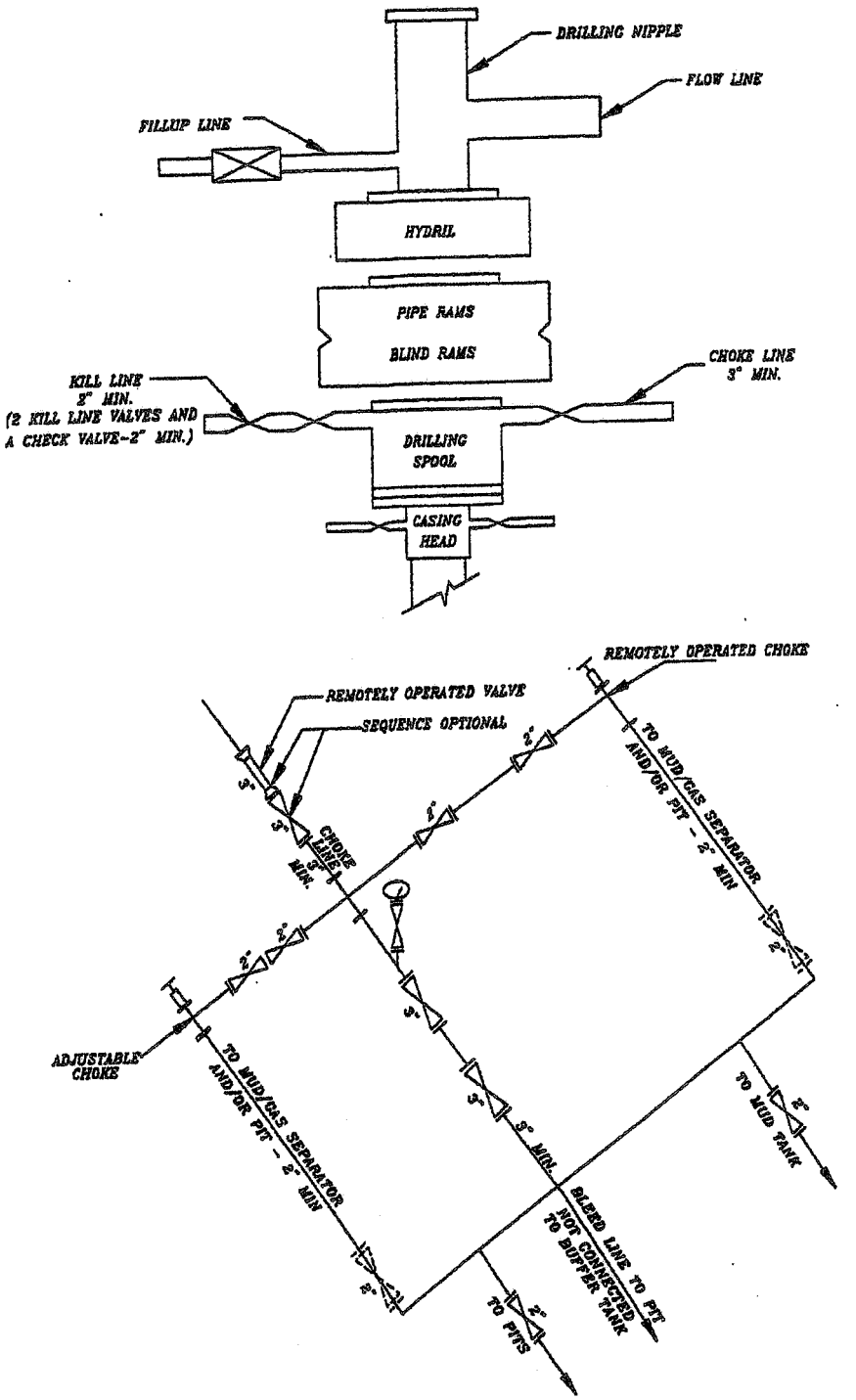
Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above..

10. Other Information:

Please see Natural Buttes Unit SOP.

NBU 921-10G2S

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

NBU 921-10G2S
Twin to NBU #252
NENW Sec. 10 ,T9S,R21E
UINTAH COUNTY, UTAH
UTU-0141315

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. **Existing Roads:**

   Refer to the attached location directions.

   Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. **Planned Access Roads:**

   Approximately 250' +/- of new access road is proposed. In addition, there is a proposed re-route of 150'. Refer to Topo Map B.

   Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

   Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

3. **Location of Existing Wells Within a 1-Mile Radius:**

   Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

   Please see the Natural Buttes Unit SOP.

   Refer to Topo Map D for the location of the proposed pipelines.

   A right-of-way is required for the pipeline. The pipeline is approximately 993' in length and 30' in width. A 4" surface steel pipeline will be constructed utilizing existing disturbance where possible. The pipeline will be butt-welded together and pulled into place with a rubber tired tractor.

Variances to Best Management Practices (BMPs) Requested:

Approximately 993' of 4" steel pipeline will be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

5. Location and Type of Water Supply:

Please see the Natural Buttes SOP.

6. Source of Construction Materials:

Please see the Natural Buttes SOP.

7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility Sec. 36, T9S, R20E,Goat Pasture Evaporation Pond SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond Sec. 2, T10S, R23E *(Request is in lieu of filing Form 3160-5, after initial production).*

8. **Ancillary Facilities:**

Please see the Natural Buttes SOP.

9. **Well Site Layout:** (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be re-surveyed and a form 3160-5 will be submitted.

10. **Plans for Reclamation of the Surface:**

Please see the Natural Buttes SOP.

Operator shall call the BIA for the seed mixture when the final reclamation occurs.

11. **Surface/Mineral Ownership:**

The well pad and access road are located on lands owned by:

Ute Indian Tribe
P.O. Box 70
Fort Duchesne, Utah 84026
(435) 722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

12. Stipulations/Notices/Mitigation:

There are no stipulations or notices for this location.

13. Other Information:

A Class III archaeological survey and a paleontological survey have been performed and will be submitted.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

14. Lessee's or Operator's Representative & Certification:

Kevin McIntyre
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6226

Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Kevin McIntyre

11/14/2008
Date

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT, #921-10B4S & #921-G2S
SECTION 10, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 1.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 1.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED IN A WESTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 2.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN RIGHT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.15 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 250' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 52.3 MILES.

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	November 14, 2008	
WELL NAME	**NBU 921-10G2S**		TD	10,400' TVD	10,654' MD
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	ELEVATION	4,706' GL KB 4,721'
SURFACE LOCATION	NENW 835' FNL & 1824' FWL, Sec. 10, T 9S R 21E				
	Latitude: 40.055628	Longitude: -109.540147		NAD 27	
BTM HOLE LOCATION	SWNE 1340' FNL & 2462' FEL, Sec. 10, T 9S R 21E				
	Latitude: 40.054236	Longitude: -109.536572		NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BIA (Surface), UDOGM, Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		20'	14"		
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist
Catch water sample, if possible, from 0 to 0,000'					
	Green River @	1,793'			
	Top of Birds Nest @	2,128			
	Mahogany @	2,632			
		Preset f/ GL @ 2,700' MD			
		Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.			
Mud logging program TBD Cased hole logging program f/ TD - surf csg			7-7/8"	4-1/2",11.6#, I80 or equivalent LTC csg	Water/ Fresh Water Mud 8.3-11.6 ppg
	Wasatch @	5,195' TVD			
	Mverde @	8,180' TVD			
	MVU2 @	9,098' TVD			
	MVU1 @	9,595' TVD			
Max anticipated Mud required 11.8 ppg	TD @	10,400' TVD 10,654' MD			

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3520	2020	453000
SURFACE	9-5/8"	0 to 2700	36.00	J-55	LTC	0.84	1.60	5.93
						7780	6350	201000
PRODUCTION	4-1/2"	0 to 10654	11.60	I-80	LTC	1.86	0.97	1.86

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.8 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 4261 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite	360	35%	12.60	1.81
			+.25 pps Flocele + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,694'	Premium Lite II + 3% KCl + 0.25 pps	450	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,960'	50/50 Poz/G + 10% salt + 2% gel	1460	40%	14.30	1.31
			+.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____

Brad Laney

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Randy Bayne

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT, #921-10B4S & #921-10G2S

PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH
SECTION 10, T9S, R21E, S.L.B.&M.

PHOTO: VIEW OF TIE-IN POINT **CAMERA ANGLE: NORTHWESTERLY**

PHOTO: VIEW OF PIPELINE ALIGNMENT **CAMERA ANGLE: NORTHWESTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

PIPELINE PHOTOS	09 MONTH	19 DAY	08 YEAR	PHOTO
TAKEN BY: D.S.	DRAWN BY: J.H.	REVISED: 00-00-00		

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT, #921-10B4S & #921-10G2S

LOCATED IN UINTAH COUNTY, UTAH
SECTION 10, T9S, R21E, S.L.B.&M.

PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: SOUTHWESTERLY

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: WESTERLY

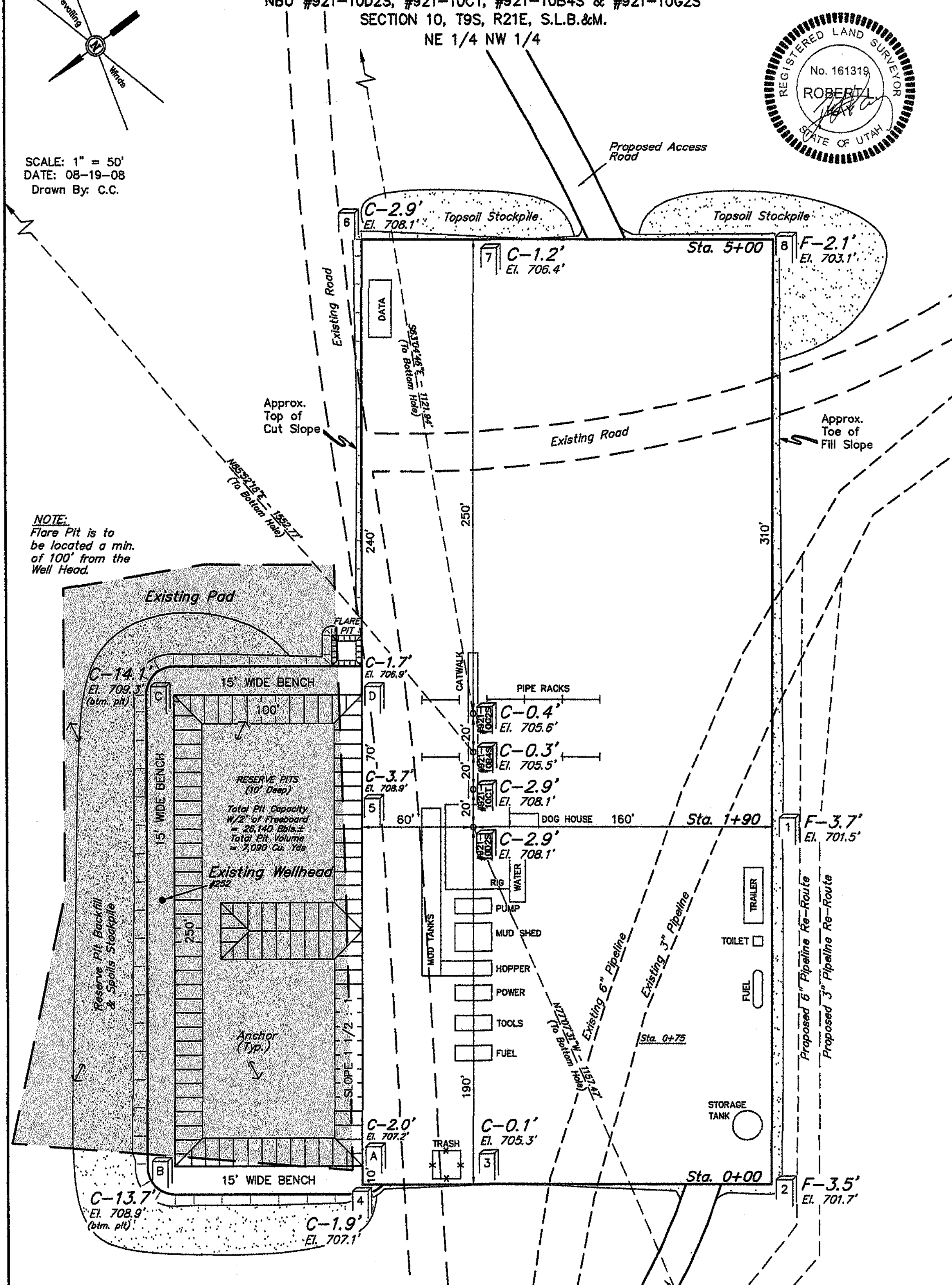
- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

LOCATION PHOTOS	09 MONTH	19 DAY	08 YEAR	PHOTO
TAKEN BY: D.S.	DRAWN BY: J.H.	REVISED: 00-00-00		

Kerr-McGee Oil & Gas Onshore LP

FIGURE #1

LOCATION LAYOUT FOR
NBU #921-10D2S, #921-10CT, #921-10B4S & #921-10G2S
SECTION 10, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4



(NAD 83) (#252)	
LATITUDE	= 40°03'22.03" (40.056119)
LONGITUDE	= 109°32'26.74" (109.540761)
(NAD 27) (#252)	
LATITUDE	= 40°03'22.16" (40.056156)
LONGITUDE	= 109°32'24.26" (109.540072)

Elev. Ungraded Ground at #921-10D2S Location Stake = 4708.1'
Elev. Graded Ground at #921-10D2S Location Stake = 4705.2'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

Kerr-McGee Oil & Gas Onshore LP

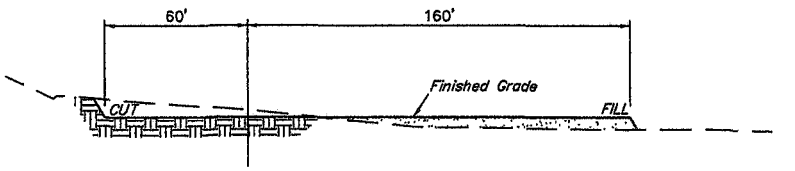
FIGURE #2

TYPICAL CROSS SECTIONS FOR
NBU #921-10D2S, #921-10CT, #921-10B4S & #921-10G2S
SECTION 10, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4

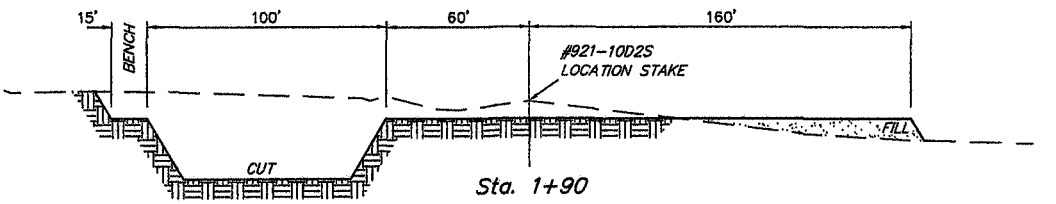
1" = 20'
X-Section Scale
1" = 50'

DATE: 08-19-08
Drawn By: C.C.

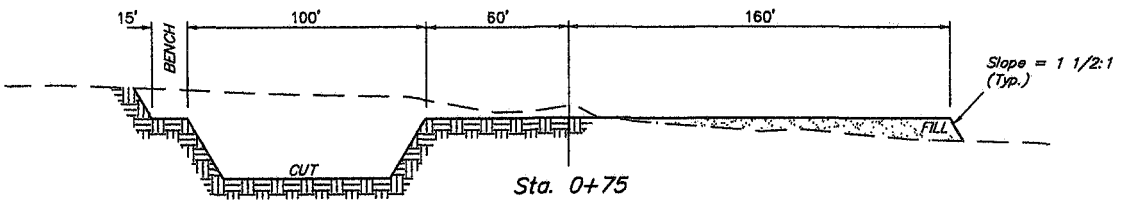
REGISTERED LAND SURVEYOR
No. 161319
ROBERT L.
STATE OF UTAH



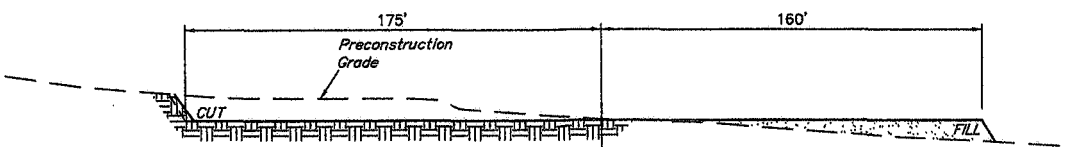
Sta. 5+00



Sta. 1+90



Sta. 0+75



Sta. 0+00

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE YARDAGES

(12") Topsoil Stripping (New Construction Only)	=	4,240 Cu. Yds.
Remaining Location	=	11,950 Cu. Yds.
TOTAL CUT	=	16,190 CU.YDS.
FILL	=	7,220 CU.YDS.

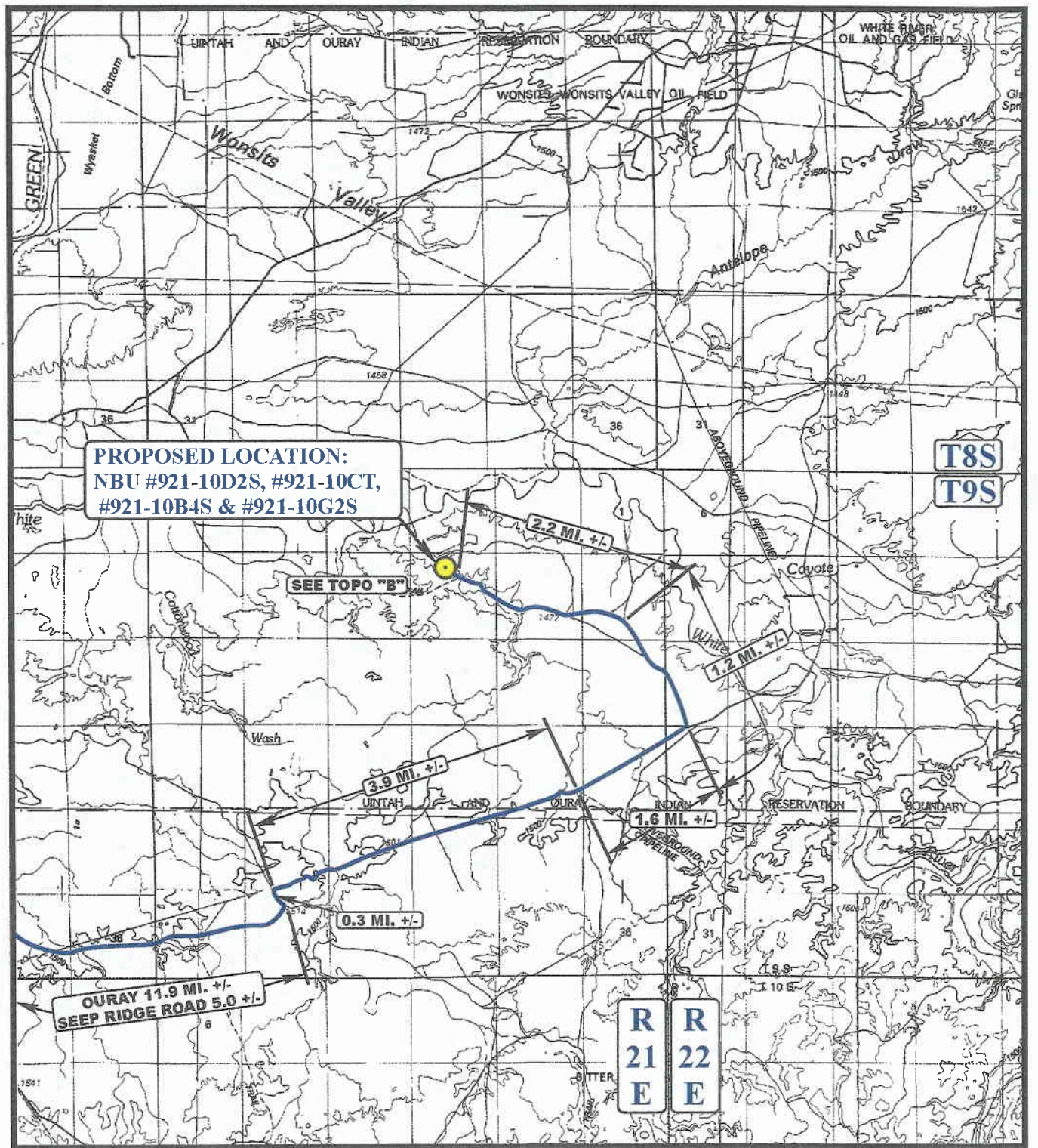
* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

EXCESS MATERIAL	=	8,970 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	7,790 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	=	1,180 Cu. Yds.

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ±3.942 ACRES
ACCESS ROAD DISTURBANCE = ±0.355 ACRES
PIPELINE DISTURBANCE = ±0.702 ACRES
TOTAL = ±4.999 ACRES

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017



LEGEND:

PROPOSED LOCATION

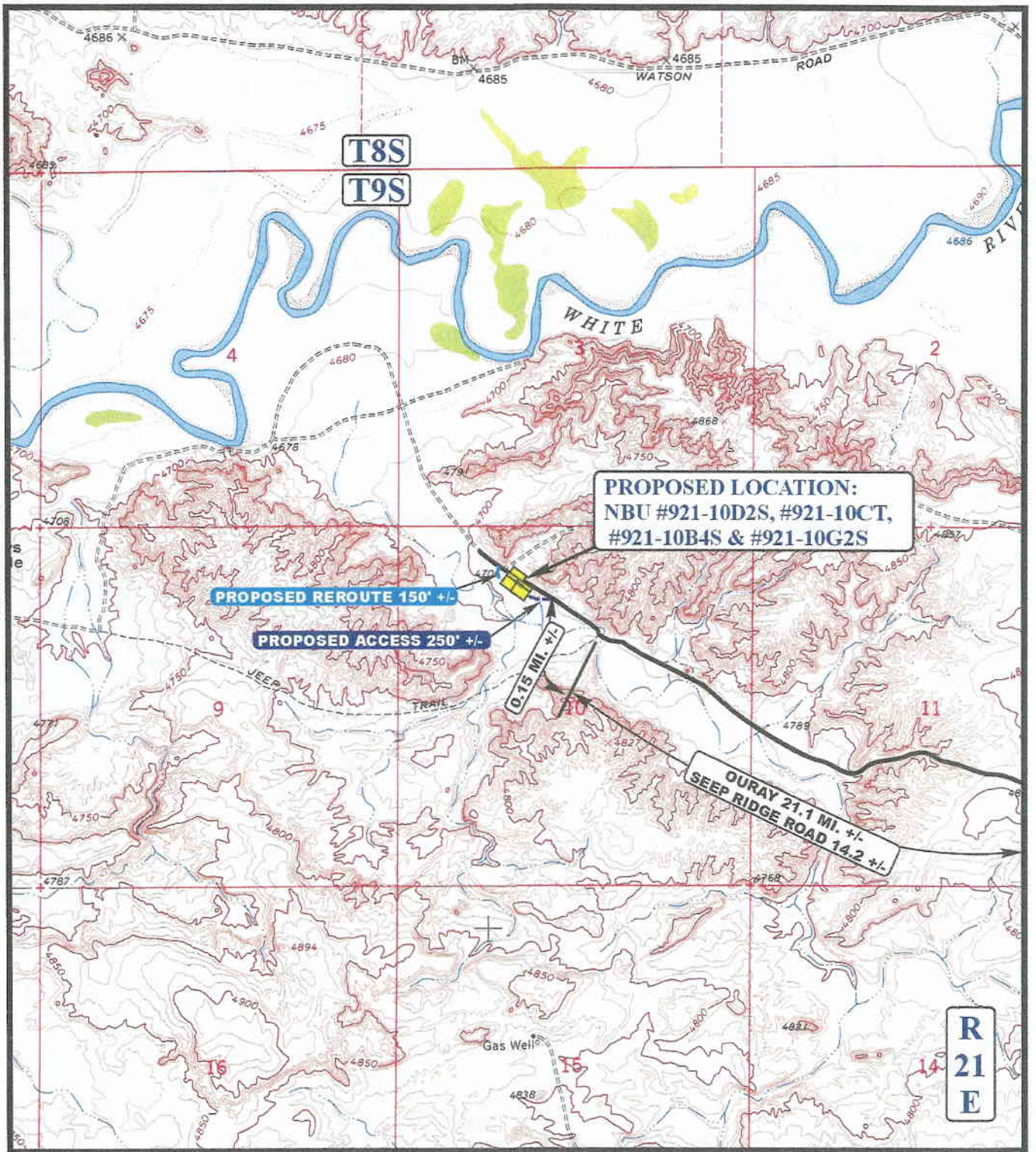
N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT,
#921-10B4S & #921-10G2S
SECTION 10, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	09 MONTH	19 DAY	08 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.H.	REVISED: 00-00-00		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

PROPOSED REROUTE

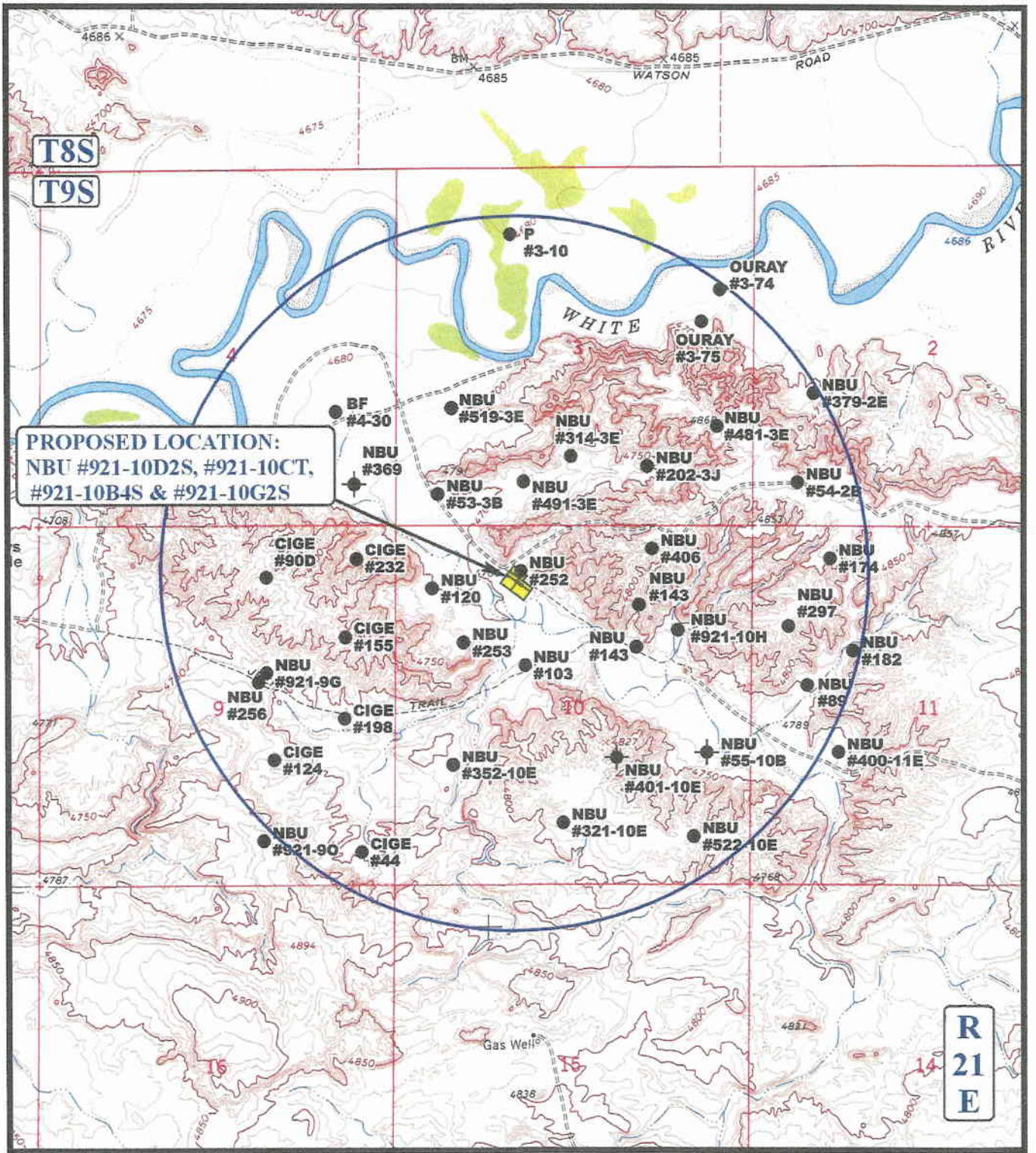
N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT,
#921-10B4S & #921-10G2S
SECTION 10, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	09 MONTH	19 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.H.	REVISED: 00-00-00		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

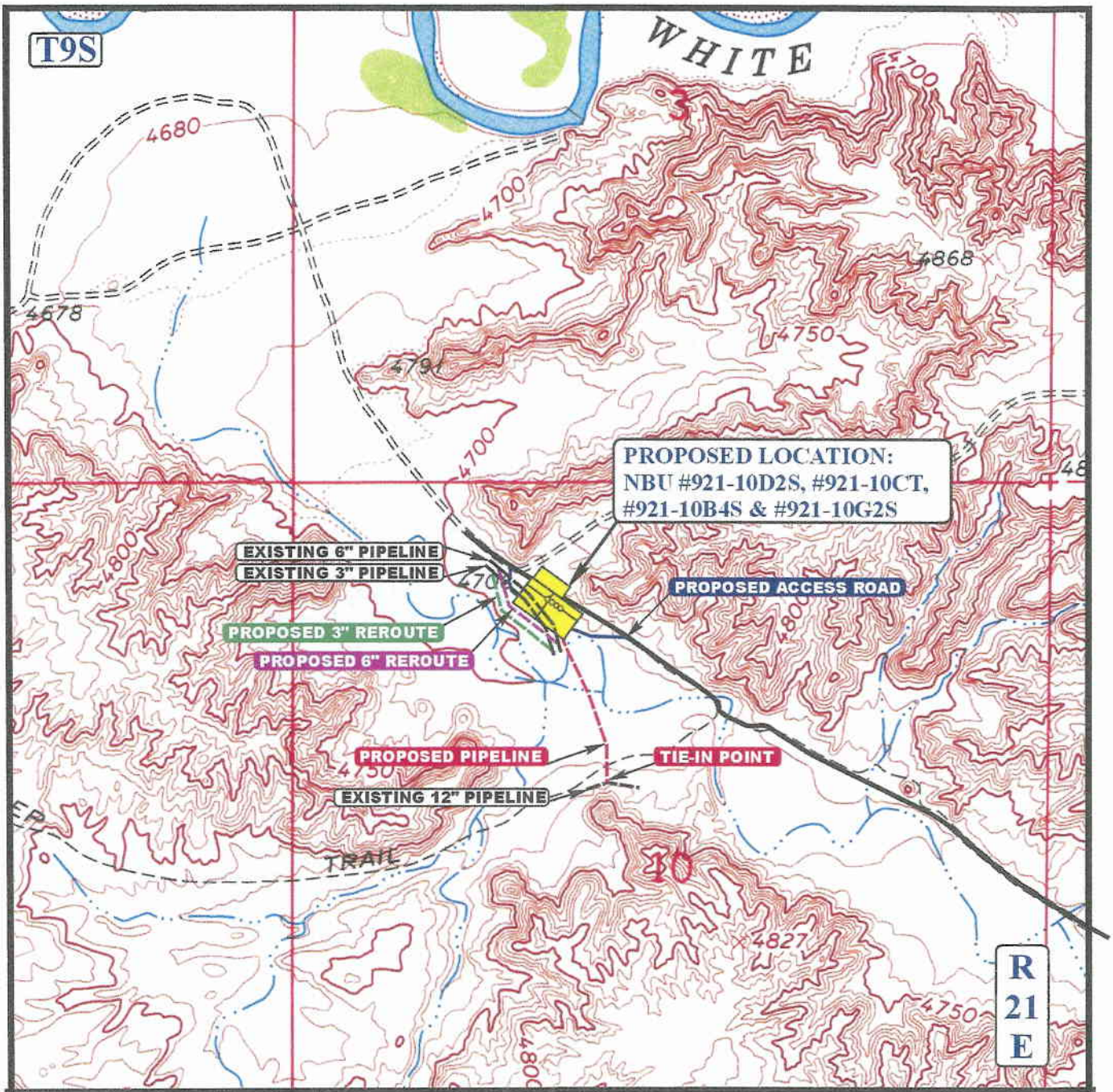
N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT,
#921-10B4S & #921-10G2S
SECTION 10, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	09 MONTH	19 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.H.	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 993' +/-

APPROXIMATE TOTAL 3" PIPELINE REROUTE = 590' +/-

APPROXIMATE TOTAL 6" PIPELINE REROUTE = 590' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED 3" PIPELINE REROUTE
- PROPOSED 6"PIPELINE REROUTE

N

Kerr-McGee Oil & Gas Onshore LP

NBU #921-10D2S, #921-10CT,
#921-10B4S & #921-10G2S
SECTION 10, T9S, R21E, S.L.B.&M.
NE 1/4 NW 1/4

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	09 MONTH	19 DAY	08 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: J.H.	REVISED: 00-00-00		

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 921-10C Pad
Well: NBU 921-10G2S
Wellbore: OH
Design: Plan #1

Kerr[redacted]cGee Oil and Gas Onshore LP

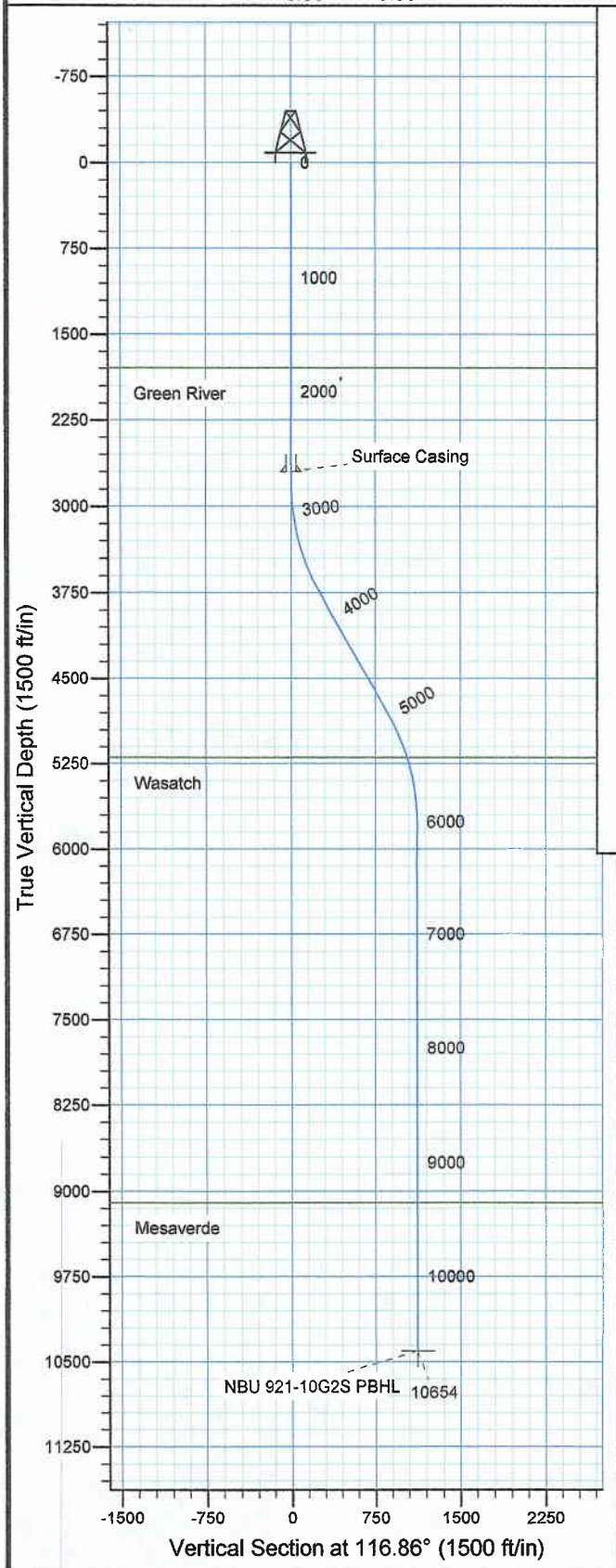
Azimuths to True North
Magnetic North: 11.42°

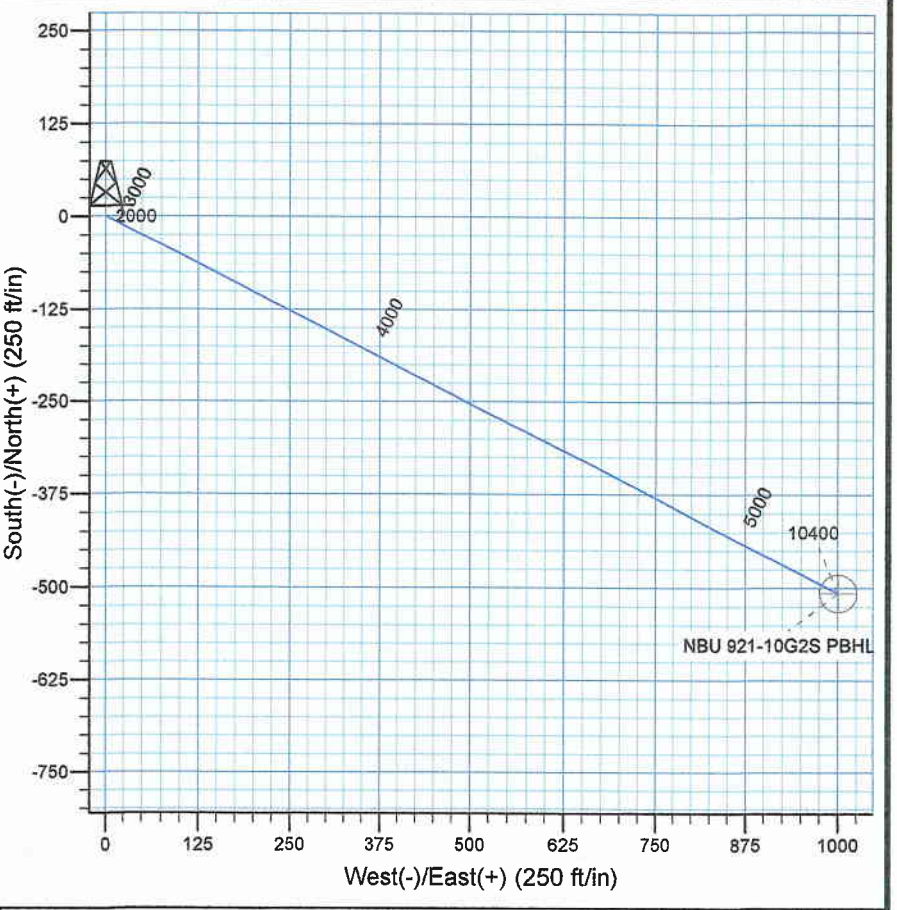
Magnetic Field
Strength: 52641.2snT
Dip Angle: 65.98°
Date: 2008-11-01
Model: IGRF2005-10

WELL DETAILS: NBU 921-10G2S

GL 4705' & RKB 18' @ 4723.00ft 4705.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	633318.79	2548556.62	40° 3' 20.260 N	109° 32' 24.530 W





Plan: Plan #1 (NBU 921-10G2S/OH)

Created By: Laura Turner Date: 2008-11-03

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: Sec 10 T9S R21E
System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	
3800.00	30.00	116.86	3754.93	-115.62	228.26	3.00	116.86	255.87	
5020.05	30.00	116.86	4811.53	-391.26	772.46	0.00	0.00	865.90	
5020.05	0.00	0.00	5766.46	-506.88	1000.72	3.00	180.00	1121.77	
10653.60	0.00	0.00	10400.00	-506.88	1000.72	0.00	0.00	1121.77	NBU 921-10G2S PBHL

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 921-10C Pad
NBU 921-10G2S
OH

Plan: Plan #1

Standard Planning Report

03 November, 2008

Database:	EDM 2003.16 Multi User Db	**Local Co-ordinate Reference:**	Well NBU 921-10G2S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Site:	NBU 921-10C Pad	**North Reference:**	True
Well:	NBU 921-10G2S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 921-10C Pad, Sec 10 T9S R21E				
Site Position:		**Northing:**	633,511.46 ft	**Latitude:**	40° 3' 22.160 N
From:	Lat/Long	**Easting:**	2,548,573.40 ft	**Longitude:**	109° 32' 24.260 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	1.26 °

Well	NBU 921-10G2S, 835' FNL 1824' FWL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	633,318.79 ft	**Latitude:**	40° 3' 20.260 N
	+E/-W	0.00 ft	**Easting:**	2,548,556.62 ft	**Longitude:**	109° 32' 24.530 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,705.00 ft

Wellbore OH

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2005-10	2008-11-01	11.42	65.98	52,641

Design Plan #1

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	116.86

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	30.00	116.86	3,754.93	-115.62	228.26	3.00	3.00	0.00	116.86	
5,020.05	30.00	116.86	4,811.53	-391.26	772.46	0.00	0.00	0.00	0.00	
6,020.05	0.00	0.00	5,766.46	-506.88	1,000.72	3.00	-3.00	0.00	180.00	
10,653.60	0.00	0.00	10,400.00	-506.88	1,000.72	0.00	0.00	0.00	0.00	NBU 921-10G2S PI

Database:	EDM 2003.16 Multi User Db	**Local Co-ordinate Reference:**	Well NBU 921-10G2S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Site:	NBU 921-10C Pad	**North Reference:**	True
Well:	NBU 921-10G2S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,793.00	0.00	0.00	1,793.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	3.00	116.86	2,899.95	-1.18	2.33	2.62	3.00	3.00	0.00
3,000.00	6.00	116.86	2,999.63	-4.73	9.33	10.46	3.00	3.00	0.00
3,100.00	9.00	116.86	3,098.77	-10.62	20.98	23.51	3.00	3.00	0.00
3,200.00	12.00	116.86	3,197.08	-18.86	37.23	41.74	3.00	3.00	0.00
3,300.00	15.00	116.86	3,294.31	-29.41	58.05	65.08	3.00	3.00	0.00
3,400.00	18.00	116.86	3,390.18	-42.24	83.39	93.48	3.00	3.00	0.00
3,500.00	21.00	116.86	3,484.43	-57.32	113.16	126.85	3.00	3.00	0.00
3,600.00	24.00	116.86	3,576.81	-74.61	147.30	165.12	3.00	3.00	0.00
3,700.00	27.00	116.86	3,667.06	-94.06	185.70	208.16	3.00	3.00	0.00
3,800.00	30.00	116.86	3,754.93	-115.62	228.26	255.87	3.00	3.00	0.00
3,900.00	30.00	116.86	3,841.53	-138.21	272.87	305.87	0.00	0.00	0.00
4,000.00	30.00	116.86	3,928.13	-160.80	317.47	355.87	0.00	0.00	0.00
4,100.00	30.00	116.86	4,014.74	-183.39	362.08	405.87	0.00	0.00	0.00
4,200.00	30.00	116.86	4,101.34	-205.99	406.68	455.87	0.00	0.00	0.00
4,300.00	30.00	116.86	4,187.94	-228.58	451.29	505.87	0.00	0.00	0.00
4,400.00	30.00	116.86	4,274.54	-251.17	495.89	555.87	0.00	0.00	0.00
4,500.00	30.00	116.86	4,361.15	-273.77	540.49	605.87	0.00	0.00	0.00
4,600.00	30.00	116.86	4,447.75	-296.36	585.10	655.87	0.00	0.00	0.00
4,700.00	30.00	116.86	4,534.35	-318.95	629.70	705.87	0.00	0.00	0.00
4,800.00	30.00	116.86	4,620.96	-341.54	674.31	755.87	0.00	0.00	0.00
4,900.00	30.00	116.86	4,707.56	-364.14	718.91	805.87	0.00	0.00	0.00

Database:	EDM 2003.16 Multi User Db	**Local Co-ordinate Reference:**	Well NBU 921-10G2S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Site:	NBU 921-10C Pad	**North Reference:**	True
Well:	NBU 921-10G2S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.00	30.00	116.86	4,794.16	-386.73	763.52	855.87	0.00	0.00	0.00
5,020.05	30.00	116.86	4,811.53	-391.26	772.46	865.90	0.00	0.00	0.00
5,100.00	27.60	116.86	4,881.58	-408.66	806.82	904.41	3.00	-3.00	0.00
5,200.00	24.60	116.86	4,971.37	-428.54	846.06	948.40	3.00	-3.00	0.00
5,300.00	21.60	116.86	5,063.34	-446.27	881.06	987.64	3.00	-3.00	0.00
5,400.00	18.60	116.86	5,157.24	-461.79	911.72	1,022.00	3.00	-3.00	0.00
5,439.71	17.41	116.86	5,195.00	-467.34	922.67	1,034.27	3.00	-3.00	0.00
Wasatch									
5,500.00	15.60	116.86	5,252.81	-475.08	937.95	1,051.40	3.00	-3.00	0.00
5,600.00	12.60	116.86	5,349.78	-486.09	959.68	1,075.76	3.00	-3.00	0.00
5,700.00	9.60	116.86	5,447.90	-494.79	976.86	1,095.02	3.00	-3.00	0.00
5,800.00	6.60	116.86	5,546.89	-501.15	989.43	1,109.11	3.00	-3.00	0.00
5,900.00	3.60	116.86	5,646.48	-505.17	997.36	1,118.00	3.00	-3.00	0.00
6,000.00	0.60	116.86	5,746.40	-506.83	1,000.63	1,121.67	3.00	-3.00	0.00
6,020.05	0.00	0.00	5,766.46	-506.88	1,000.72	1,121.77	3.00	-3.00	0.00
6,100.00	0.00	0.00	5,846.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,200.00	0.00	0.00	5,946.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,300.00	0.00	0.00	6,046.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,400.00	0.00	0.00	6,146.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,500.00	0.00	0.00	6,246.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,600.00	0.00	0.00	6,346.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,700.00	0.00	0.00	6,446.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,800.00	0.00	0.00	6,546.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
6,900.00	0.00	0.00	6,646.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,000.00	0.00	0.00	6,746.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,100.00	0.00	0.00	6,846.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,200.00	0.00	0.00	6,946.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,300.00	0.00	0.00	7,046.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,400.00	0.00	0.00	7,146.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,500.00	0.00	0.00	7,246.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,600.00	0.00	0.00	7,346.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,700.00	0.00	0.00	7,446.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,800.00	0.00	0.00	7,546.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
7,900.00	0.00	0.00	7,646.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,000.00	0.00	0.00	7,746.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,100.00	0.00	0.00	7,846.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,200.00	0.00	0.00	7,946.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,300.00	0.00	0.00	8,046.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,400.00	0.00	0.00	8,146.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,500.00	0.00	0.00	8,246.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,600.00	0.00	0.00	8,346.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,700.00	0.00	0.00	8,446.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,800.00	0.00	0.00	8,546.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
8,900.00	0.00	0.00	8,646.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,000.00	0.00	0.00	8,746.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,100.00	0.00	0.00	8,846.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,200.00	0.00	0.00	8,946.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,300.00	0.00	0.00	9,046.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,351.60	0.00	0.00	9,098.00	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
Mesaverde									
9,400.00	0.00	0.00	9,146.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,500.00	0.00	0.00	9,246.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,600.00	0.00	0.00	9,346.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00

Database:	EDM 2003.16 Multi User Db	**Local Co-ordinate Reference:**	Well NBU 921-10G2S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4705' & RKB 18' @ 4723.00ft
Site:	NBU 921-10C Pad	**North Reference:**	True
Well:	NBU 921-10G2S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,700.00	0.00	0.00	9,446.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,800.00	0.00	0.00	9,546.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
9,900.00	0.00	0.00	9,646.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,000.00	0.00	0.00	9,746.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,100.00	0.00	0.00	9,846.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,200.00	0.00	0.00	9,946.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,300.00	0.00	0.00	10,046.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,400.00	0.00	0.00	10,146.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,500.00	0.00	0.00	10,246.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,600.00	0.00	0.00	10,346.40	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
10,653.60	0.00	0.00	10,400.00	-506.88	1,000.72	1,121.77	0.00	0.00	0.00
NBU 921-10G2S PBHL									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 921-10G2S PBH - plan hits target center - Circle (radius 25.00)	0.00	0.00	10,400.00	-506.88	1,000.72	632,833.96	2,549,568.21	40° 3' 15.250 N	109° 32' 11.660 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,700.00	2,700.00	Surface Casing	9.625	13.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,793.00	1,793.00	Green River		0.00	
5,439.71	5,195.00	Wasatch		0.00	
9,351.60	9,098.00	Mesaverde		0.00	

IPC #08-211

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Twin Wells, & Pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E)

Ouray SE & Red Wash SW
Topographic Quadrangles
Uintah County, Utah

September 19, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by Bruce Pargeets of the Ute Indian Tribe and by Lynn Becker, EMD Land Division Manager of the Ute Indian Tribe's Energy and Minerals Department, a paleontological reconnaissance survey of Kerr McGee's proposed twin wells and pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E) was conducted by Simon Masters, Leith Tidwell, and Arica Scheetz on August 26, 2008. The survey was conducted under the Ute Indian Tribe Business License FY 2008, #A08-1308 and the accompanying Access Permit (effective 3/26/2008 through 9/30/2008). This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);
2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579) and
3) The National Historic Preservation Act.16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- ***Class 1*** **– Very Low**. Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- ***Class 2*** **– Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial and colluvial deposits etc…)
- ***Class 3*** **– Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
    - ***Class 3a*** **– Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.

- *Class 3b* – **Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.

- *Class 4* – **High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
  - *Class 4a* – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - *Class 4b* – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- *Class 5* – **Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
  - *Class 5a* - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - *Class 5b* - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

LOCATION

Kerr McGee's proposed twin wells and pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E) are located on Ute Indian Reservation land about one to 3 miles south and about a quarter of a mile to five miles west of the White River and some 15 to 20 miles southeast of Ouray, Utah. The project area can be found on the Ouray SE and Red Wash SW 7.5 minute U. S. Geological Survey Quadrangle Maps, Uintah County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt, and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt, and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

NBU #921-10CT, 10B4S, 10D2S & 10G2S

The proposed pipeline begins in the SE/NW quarter-quarter section of Sec. 10, T 9 S, R 21 E and parallels an existing road for approximately 0.2 mile to terminate at the multi-well pad located in the NW/NW quarter-quarter section (Figure 1). The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed in some areas. Undisturbed ground is covered in vegetated colluvium. A large outcrop of variegated green and maroon siltstone was observed just west of the existing well pad. A small unidentifiable turtle scatter was found just outside of the proposed area among the said outcrop but no other fossils were discovered.

NBU #921-11GT
The proposed twin well pad is located on the existing well site "NBU 316" situated in the SW/NE quarter-quarter section of Sec 11, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

NBU #921-11HT
The proposed twin well pad is located on the existing well site "NBU 315" situated in the SE/NE quarter-quarter section of Sec. 11, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

NBU #921-12AT
The proposed twin well pad is located on the existing well site "NBU 376" situated in the NE/NE quarter-quarter section of Sec. 12, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

NBU #921-12DT
The proposed twin well pad is located on the existing well site "NBU 418" situated in the NW/NW quarter-quarter section on Sec. 12, T 9 S, R 21 E (Figure 2). The proposed well pad is staked on atop a hill on relatively flat ground that has been previously disturbed. Undisturbed ground is covered primarily in vegetated colluvium and bordered along the east side of the pad by a purple siltstone outcrop showing inter-fingering of the Myton Member (Uinta C) of the Uinta Formation. No fossils were found.

NBU #921-13CT, 13G2S, 13D4S & 13B2S
The proposed pipeline begins in the SW/NW quarter-quarter section of Sec. 18, T 9 S, R 22 E and parallels and existing road for approximately 0.9 mile until terminating at the proposed muti-well pad located at the existing well site "CIGE 274" in the NE/NW quarter-quarter section of Sec. 13, T 9 S, R 21 E (Figure 2). The proposed pipeline is staked on colluvium and modern eolian deposits. The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop. No fossils were found.

NBU #921-15MT
The proposed twin well pad is located on the existing well site "NBU 191" in the SW/SW quarter-quarter section of Sec. 15, T 9 S, R 21 E (Figure 1). The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium and modern eolian deposits with no visible outcrop. Just outside of the northeast corner a small turtle scatter was found.

NBU #921-20IT

The proposed twin well pad is located on the existing well site "NBU 70" in the NE/SE quarter-quarter section of Sec. 20, T 9 S, R 21 E (Figure 1). The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium. A large outcrop of purple siltstone and gray, cobble-sized sandstone was observed along the northern side of the pad. Two large turtle scatters were found among the purple siltstone outcrop.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
"NBU #921-10CT, 10B4S, 10D2S & 10G2S" (Sec. 10, T 9 S, R 21 E)	The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed in some areas. Undisturbed ground is covered in vegetated colluvium. A large outcrop of variegated green and maroon siltstone was observed just west of the existing well pad.	A small unidentifiable turtle scatter was found just outside of the proposed area among the said outcrop but no other fossils were discovered. **Class 3a**
"NBU #921-11GT" (Sec. 11, T 9 S, R 21 E)	The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. **Class 3a**
"NBU #921-11HT" (Sec. 11, T 9 S, R 21 E)	The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. **Class 3a**
"NBU #921-12AT" (Sec. 12, T 9 S, R 21 E)	The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. **Class 3a**
"NBU #921-12DT" (Sec. 12, T 9 S, R 21 E)	The proposed well pad is staked on atop a hill on relatively flat ground that has been previously disturbed. Undisturbed ground is covered primarily in vegetated colluvium and bordered along the east side of the pad by a purple siltstone outcrop showing inter-fingering of the Myton Member (Uinta C) of the Uinta Formation.	No fossils were found. **Class 3a**
"NBU #921-13CT, 13G2S, 13D4S & 13B2S" (Sec. 13, T 9 S, R 21 E)	The proposed pipeline is staked on colluvium and modern eolian deposits. The proposed well pad is staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium with no visible outcrop.	No fossils were found. **Class 3a**

"NBU #921-15MT" (Sec. 15, T 9 S, R 21 E)	The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium and modern eolian deposits with no visible outcrop.	Just outside of the northeast corner a small turtle scatter was found. **Class 3a**
"NBU #921-20IT" (Sec. 20, T 9 S, R 21 E)	The proposed pipeline and well pad are staked on relatively flat ground that has been previously disturbed. Undisturbed ground is covered in vegetated colluvium. A large outcrop of purple siltstone and gray, cobble-sized sandstone was observed along the northern side of the pad.	Two large turtle scatters were found among the purple siltstone outcrop. **Class 3a**

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed twin wells and pipelines for "NBU #921-10CT, 10B4S, 10D2S & 10G2S, #921-11GT, #921-11HT, #921-12AT, #921-12DT, #921-13CT, 13G2S, 13D4S & 13B2S, #921-15MT, & #921-20IT" (Sec. 10-13, 15 & 20, T 9 S, R 21 E). The twin wells and pipelines covered in this report showed little to no signs of vertebrate fossils inside the proposed construction areas although a few fossils were found on the edges of the project areas. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formational sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, recommendations are that a paleontologist is immediately notified in order to collect fossil materials in danger of being destroyed. Any vertebrate fossils found should be carefully moved outside of the construction areas to be check by a permitted paleontologist.

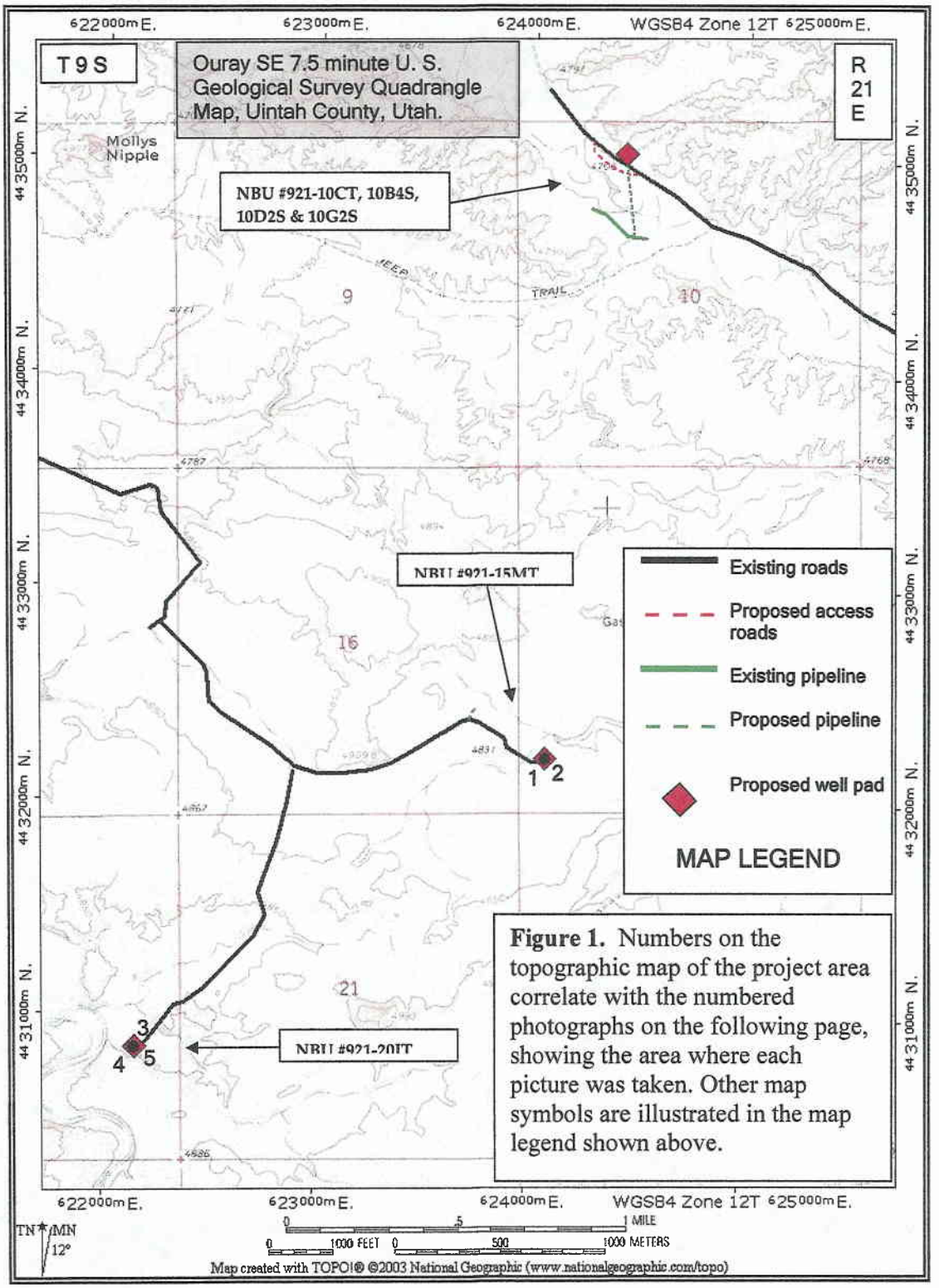
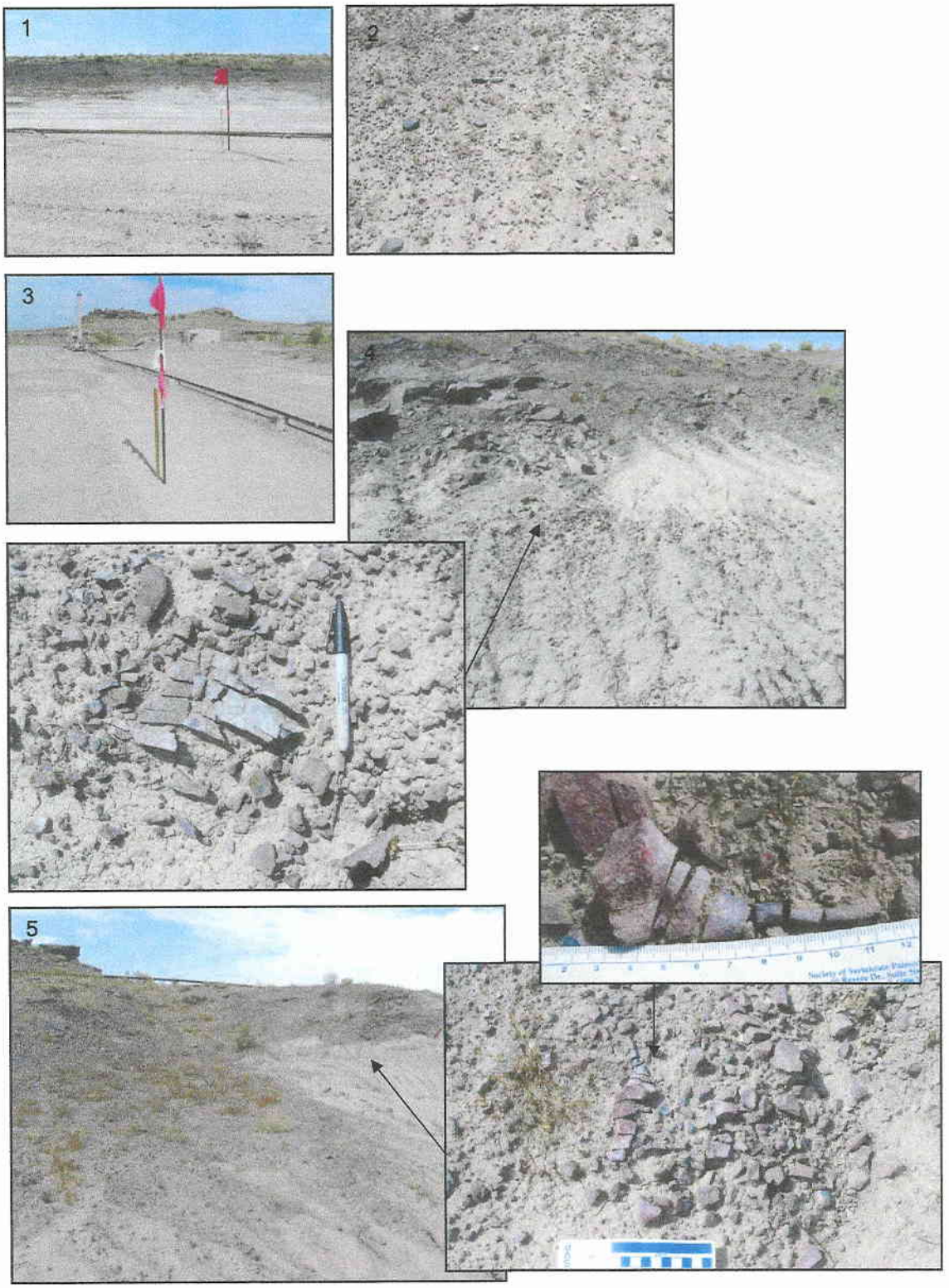


Figure 1. Numbers on the topographic map of the project area correlate with the numbered photographs on the following page, showing the area where each picture was taken. Other map symbols are illustrated in the map legend shown above.

Figure 1. *continued...*



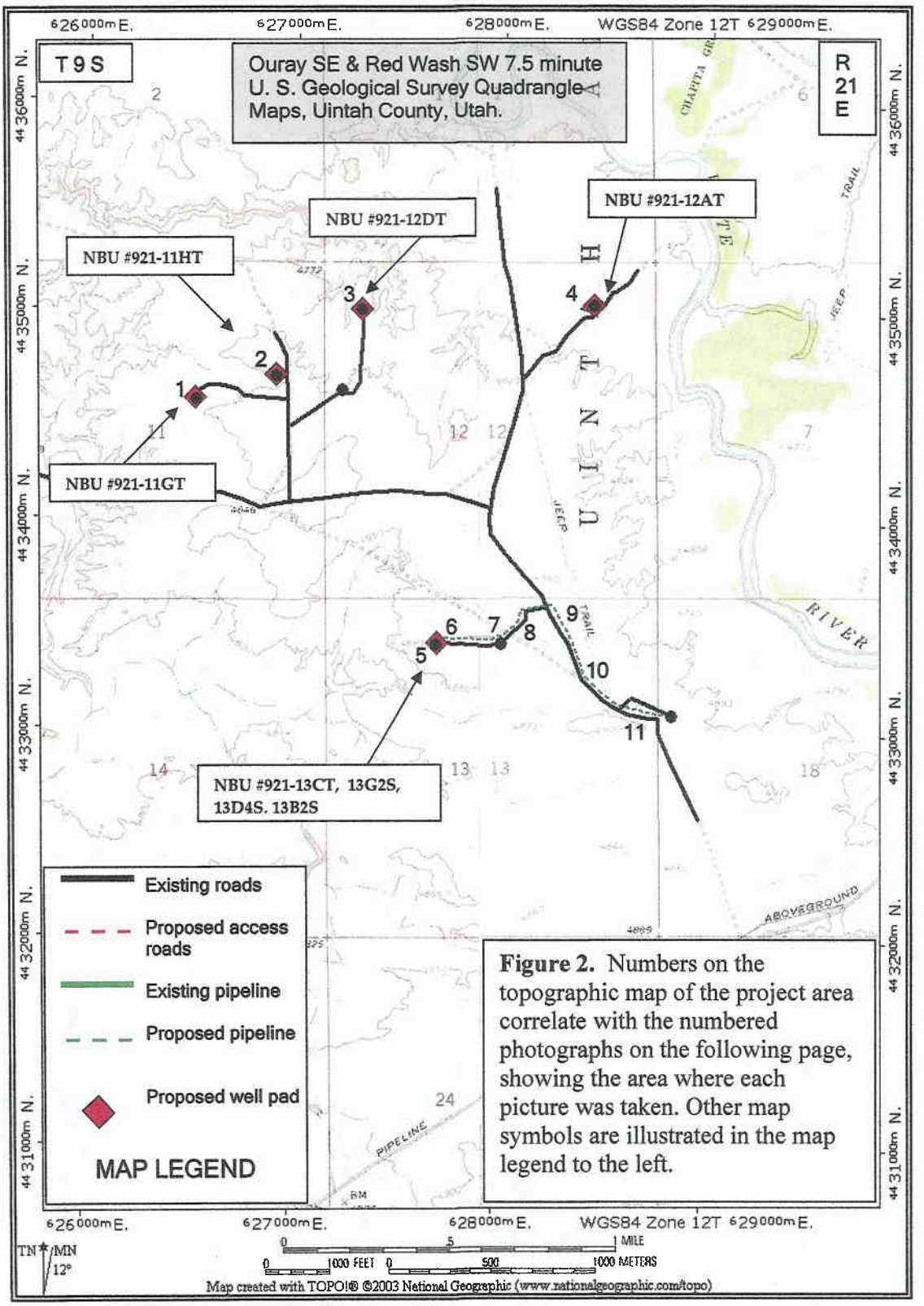
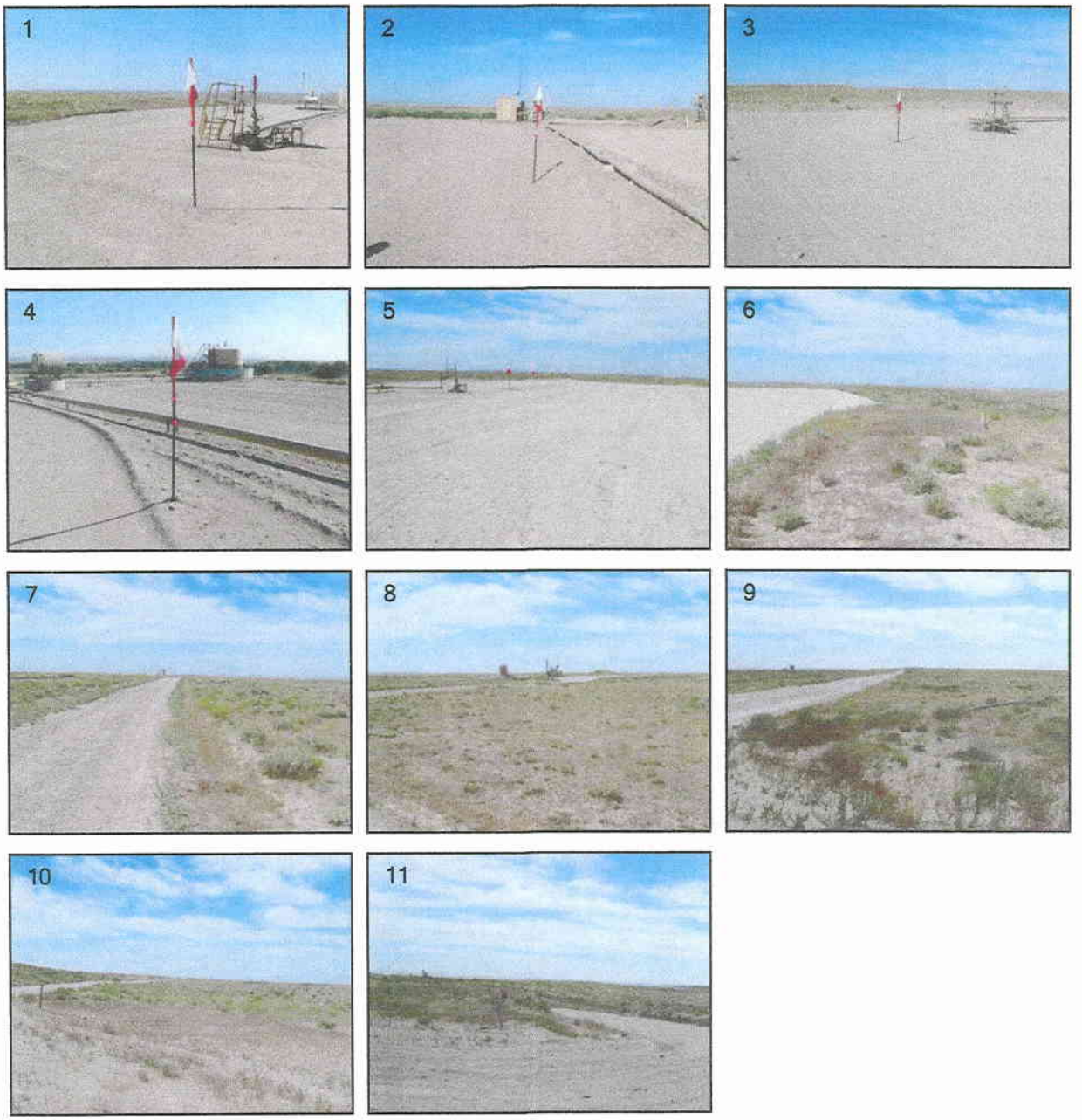

626000m E.
627000m E.
628000m E.
WGS84 Zone 12T 629000m E.
T 9 S
R 21 E
Ouray SE & Red Wash SW 7.5 minute U. S. Geological Survey Quadrangle Maps, Uintah County, Utah.
NBU #921-12AT
NBU #921-12DT
NBU #921-11HT
NBU #921-11GT
NBU #921-13CT, 13G2S, 13D4S. 13B2S
UINTAH
RIVER
Existing roads
Proposed access roads
Existing pipeline
Proposed pipeline
Proposed well pad
MAP LEGEND
Figure 2. Numbers on the topographic map of the project area correlate with the numbered photographs on the following page, showing the area where each picture was taken. Other map symbols are illustrated in the map legend to the left.
TN 12° MN
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

Figure 2. *continued...*



REFERENCES CITED

Abbott, W., 1957, Tertiary of the Uinta Basin: Intermountain Assoc. Petroleum Geologists Guidebook, Eighth Ann. Field Conf., p. 102-109.

Anderson, D. W., and Picard, M. D., 1972, Stratigraphy of the Duchesne River Formation (Eocene-Oligocene?), northern Uinta Basin, northeastern Utah: Utah Geological and Mineralogical Survey Bulletin 97, p. 1-28.

Betts, C. W., 1871, The Yale College expedition of 1870: Harper's New Monthly Magazine, v. 43, p. 663-671.

Black, C. C. and Dawson, M. R., 1966, A Review of Late Eocene Mammalian Faunas from North America: American Journal of Science, v. 264, p. 321-349.

Bryant, B., Naeser C. W., Marvin R. F., Mahnert H. H., 1989, Cretaceous and Paleogene Sedimentary Rocks and Isotopic Ages of Paleogene Tuffs,Uinta basin, Utah. And Ages of Late Paleogene and Neogene Tuffs and the Beginning of Rapid Regional Extension, Eastern Boundary of the Basin and Range Province near Salt lake City, Utah: In: Evolution of Sedimentary basins-Uinta and Piceance Basins. U. S. Geological Survey Bulletin 1787-J, K.

Flynn, J. J., 1986, Correlation and geochronology of middle Eocene strata from the western United States: Palaeogeographic, Palaeoclimatology, Palaeoecology, v. 55, p. 335-406.

Hamblin, A. H. and Miller, W. E., 1987, Paleogeography and Paleoecology of the Myton Pocket, Uinta Basin, Utah (Uinta Formation-Upper Eocene): Brigham Young University Geology Studies, v. 34, p 33-60.

Kay, J. L., 1934, Tertiary formations of the Uinta Basin, Utah: Annals of Carnegie Museum, v. 23, p. 357-371.

Marsell, R. E., 1964, Geomorphology of the Uinta Basin-A Brief Sketch: Thirteenth annual Field Conference. Association of Petroleum Geologists, p. 34-46.

Marsh, O. C., 1871, on the geology of the Eastern Uintah Mountains: American Journal of Science and Arts, v. 1, p. 1-8.

_____ 1875a, Ancient lake basins of the Rocky Mountain region: American Journal of Science and Arts, v. 9, p. 49-52.

_____ 1875b, Notice of new Tertiary mammals, IV: American Journal of Science and Arts, Third Series, v. 9, p. 239-250.

Osborn, H. F., 1895, Fossil mammals of the Uinta beds, expedition of 1894: American Museum of Natural History Bulletin, v. 7, p. 71-106.

_____ 1929, The Titanotheres of Ancient Wyoming, Dakota and Nebraska: Monograph of the U. S. Geological Survey, v. 55, p. 1-953.

Peterson, O. A., 1931c, new species from the Oligocene of the Uinta: Annals of Carnegie Museum, v. 21, p. 61-78.

Peterson, O. A. and Kay, J. L., 1931, The Upper Uinta Formation of Northeastern Utah: Annals of the Carnegie Museum, v. 20, p. 293-306.

Prothero, D. R., 1996, Magnetic Stratigraphy and biostratigraphy of the middle Eocene Uinta Formation, Uinta Basin, Utah, *in* Prothero, D. R., and Emry, R. J. editors, The Terrestrial Eocene-Oligocene Transition in North America, p. 3-24.

Rasmussen, D. T., Conroy, G. C., Friscia, A. R., Townsend, K. E. and Kinkel, M. D., 1999, Mammals of the middle Eocene Uinta Formation: Vertebrate Paleontology of Utah, p. 401-420.

Riggs, E. S., 1912. New or Little Known Titanotheres from the Lower Uintah Formations: Field Museum of Natural History Geological Series, v. 159, p. 17-41.

Ryder, R. T., Fouch, T. D., Elison, J. H., 1976, Early Tertiary sedimentation in the western Uinta Basin, Utah: Geological Society of America Bulletin v. 87, p. 496-512.

Scott, W. B., 1945, The Mammalia of the Duchesne River Oligocene: Transactions of the American Philosophical Society, v. 34, p. 209-253.

Stucky, R. K., 1992, Mammalian faunas in North America of Bridgerian to early Arikareean "age" (Eocene and Oligocene), in Prothero, D. R., and Berggren, W. A., eds., Eocene-Oligocene climatic and biotic evolution: Princeton University Press, p. 464-493.

Wood, H. E., 1934, Revision of the Hyrachyidaes: American Museum of Natural History Bulletin, v. 67, p. 181-295.

_____ and others, 1941, Nomenclature and Correlation of the North America Continental Tertiary: Geol. Soc. Amer. Bull., v. 52, no. 1, Jan. 1, p. 1-48. 52, no. 1, Jan. 1, p. 1-48.

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 63 PROPOSED NBU WELL LOCATIONS
IN TOWNSHIP 9S, RANGE 21E
UINTAH COUNTY, UTAH

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 63 PROPOSED NBU WELL LOCATIONS IN TOWNSHIP 9S, RANGE 21E UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

School and Institutional
Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-234

October 16, 2008

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A07-363

INTRODUCTION

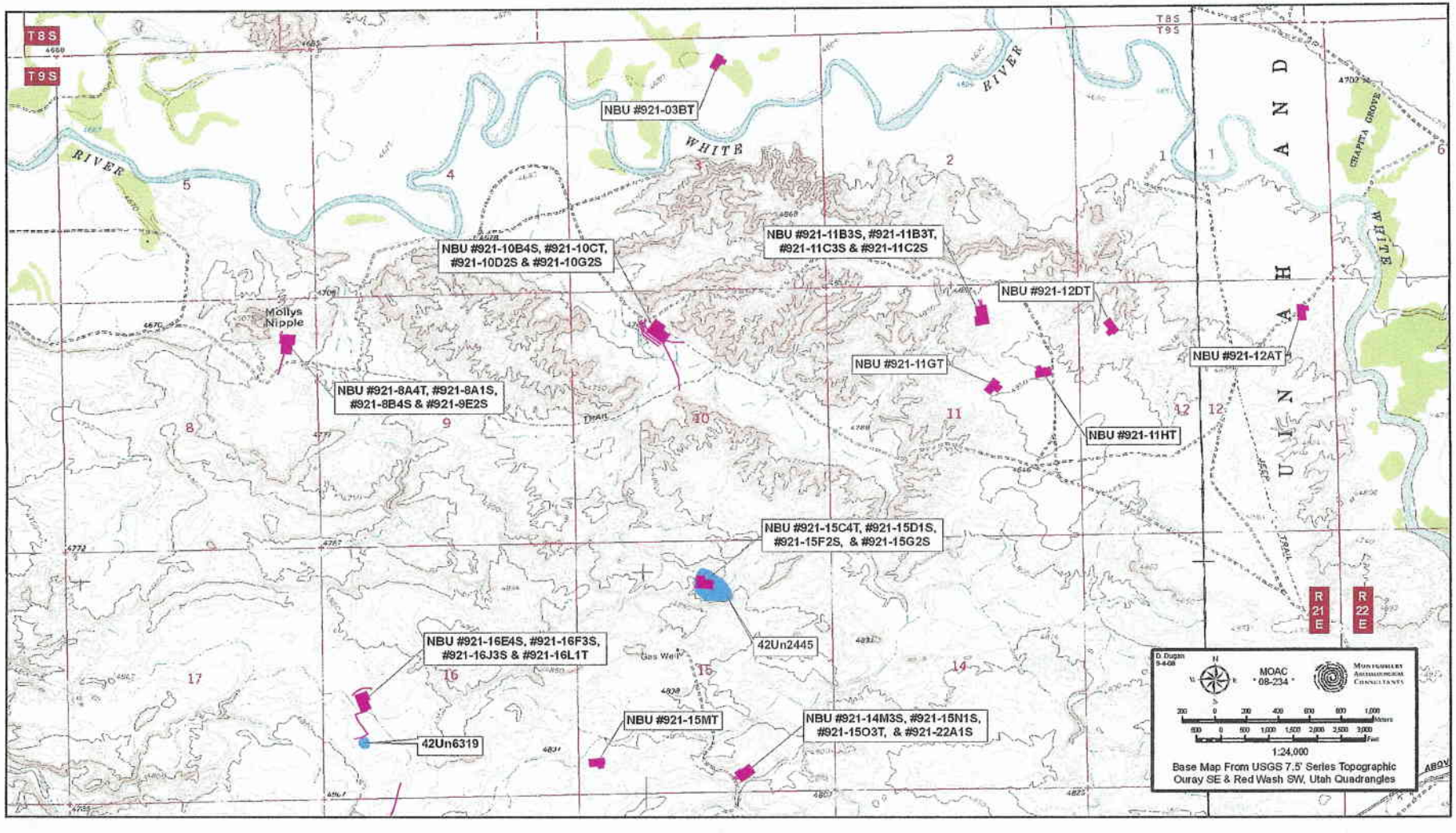
A Class I literature review was completed by Montgomery Archaeological Consultants, Inc. (MOAC) in October 2008 of Kerr-McGee Onshore's 63 proposed NBU well locations in Township 9S, Range 21E. The project area is situated south of the White River and southeast of the Ouray, Uintah County, Utah. The wells are designated NBU 921-03BT, 921-8A4T, 921-8A1S, 921-8B4S, 921-9E2S, 921-10B4S, 921-10CT, 921-10D2S, 921-10G2S, 921-11B3S, 921-11B3T, 921-11C3S, 921-11C2S, 921-11GT, 921-11HT, 921-12AT, 921-12DT, 921-15C4T, 921-15D1S 921-15F2S, 921-15G2S, 921-15MT, 921-14M3S, 921-15N1S, 921-15O3T, 921-22A1S, 921-16E4S, 921-16F3S, 921-16J3S, 921-16L1T, 921-20IT, 921-21E1S, 921-21E4T, 921-21F4S, 921-21L1S, 921-26A4BS, 921-26A1CS 921-25D4AS, 921-25E1BS, 921-26IT, 921-27C2AS, 921-27C2D, 921-27D2AS, 921-27D2DS, 921-27HT, 921-27J1S, 921-27J4S, 921-27P3S, 921-27KT, 921-27LT, 921-27MT, 921-27OT, 921-28L4D, 921-29K4DS, 921-29O1CS, 921-29OT, 921-29P3AS, 921-30FT, 921-31BT, 921-33F SWD, 921-34H SWD, 921-34L SWD, and 921-35AT. This document was implemented at the request of Ms. Raleen White, Kerr-McGee Onshore LP, Denver, Colorado.

The purpose of this Class I review is to identify, classify, and evaluate the previously conducted cultural resource inventories and archaeological sites in the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

The project area in which Kerr-McGee Onshore's 62 proposed NBU well locations occur was previously inventoried by MOAC in 2007 for the Class III inventory of Township 9 South, Range 21 East (Montgomery and Roberts 2007; U-07-MQ-U-07-MQ-0461.). A file search was completed by consulting MOAC's Class I existing data review of 459 square miles (293,805 acres) covering the Greater NBU study area between Bonanza and Ouray in Uintah County, northeastern Utah (Patterson et al. 2008). Kerr-McGee Oil & Gas Onshore LP proposes to explore and develop oil and natural gas resources throughout the area. Record searches were performed for this Class I project by Marty Thomas at the Utah State Historic Preservation Office (SHPO) on various dates between June 14, 2006 and January 27, 2007. The results of this Class I data review and Class III inventory indicated that two previously recorded sites (42Un2445 and 42Un6319) occur in the current project area.

DESCRIPTION OF THE PROJECT AREA

The project area is situated south of the White River and both sides of Cottonwood Wash in the Uinta Basin. The legal description is Township 9S, Range 21E, Sections 3, 8, 10, 11, 12, 15, 16, 20, 21, 26, 27, 28, 29, 30, 31, 33, 34, and 35 (Figure 1, Table 1). Land status is public land administered by the Bureau of Land Management (BLM) Vernal Field Office, Ute Tribal land (Uintah and Ouray Agency), and School and Institutional Trust Lands Administration (SITLA) property.


T8S
T9S
NBU #921-03BT
NBU #921-10B4S, #921-10CT,
#921-10D2S & #921-10G2S
NBU #921-11B3S, #921-11B3T,
#921-11C3S & #921-11C2S
NBU #921-12DT
NBU #921-12AT
NBU #921-11GT
NBU #921-11HT
NBU #921-8A4T, #921-8A1S,
#921-8B4S & #921-9E2S
NBU #921-15C4T, #921-15D1S,
#921-15F2S, & #921-15G2S
42Un2445
NBU #921-16E4S, #921-16F3S,
#921-16J3S & #921-16L1T
42Un6319
NBU #921-15MT
NBU #921-14M3S, #921-15N1S,
#921-15O3T, & #921-22A1S
Mollys Nipple
WHITE RIVER
UINTAH AND
R 21 E
R 22 E
MOAC
08-234
1:24,000
Base Map From USGS 7.5' Series Topographic
Ouray SE & Red Wash SW, Utah Quadrangles

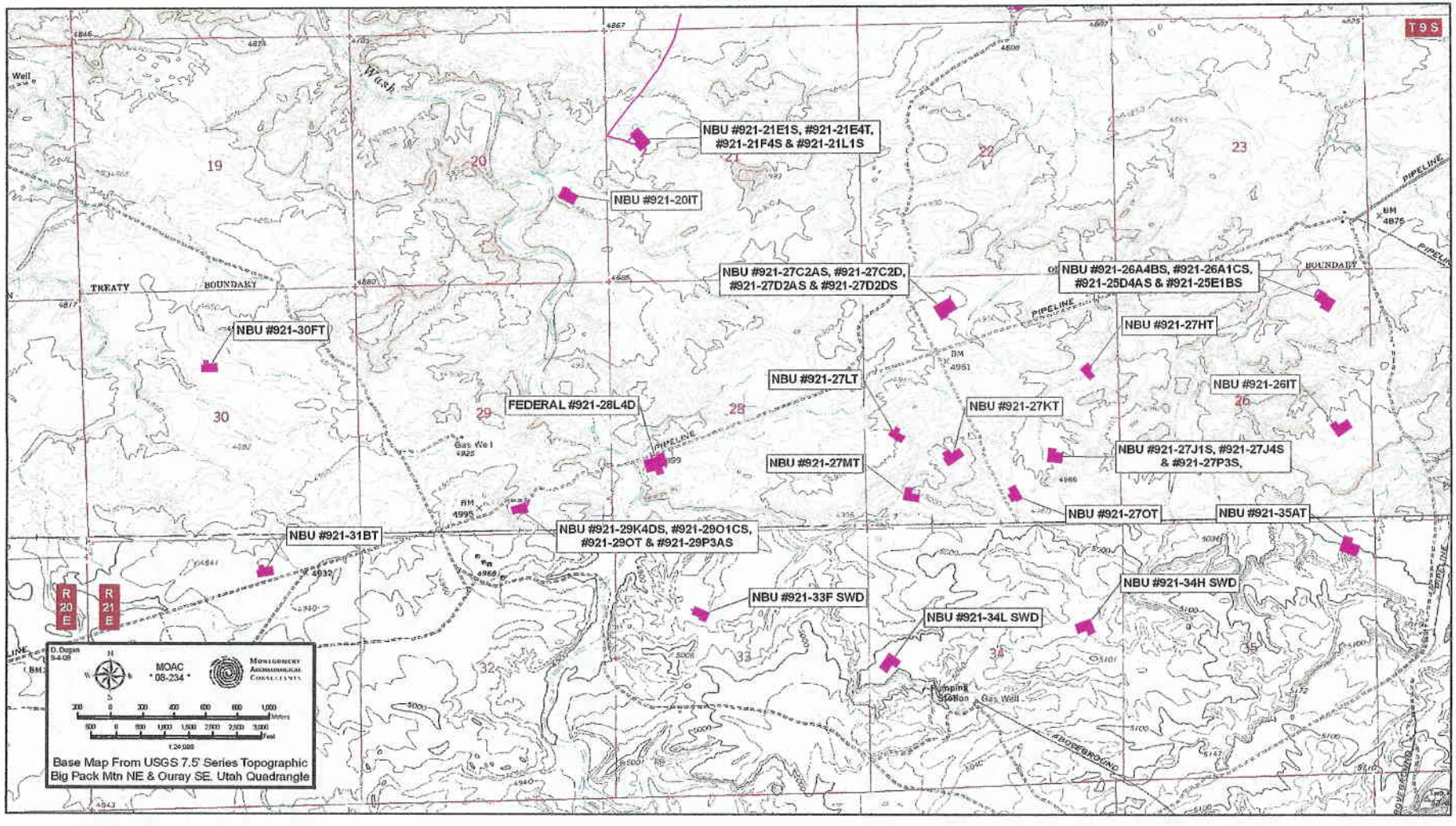

NBU #921-21E1S, #921-21E4T, #921-21F4S & #921-21L1S
NBU #921-20IT
NBU #921-27C2AS, #921-27C2D, #921-27D2AS & #921-27D2DS
NBU #921-26A4BS, #921-26A1CS, #921-25D4AS & #921-25E1BS
NBU #921-30FT
NBU #921-27HT
NBU #921-27LT
NBU #921-26IT
FEDERAL #921-28L4D
NBU #921-27KT
NBU #921-27J1S, #921-27J4S & #921-27P3S,
NBU #921-27MT
NBU #921-27OT
NBU #921-35AT
NBU #921-31BT
NBU #921-29K4DS, #921-29O1CS, #921-29OT & #921-29P3AS
NBU #921-34H SWD
NBU #921-33F SWD
NBU #921-34L SWD
T 9 S
R 20 E
R 21 E
TREATY BOUNDARY
PIPELINE
Gas Well
Pumping Station
MOAC 08-234
Base Map From USGS 7.5' Series Topographic
Big Pack Mtn NE & Ouray SE, Utah Quadrangle

Table 1. Kerr-McGee Onshore's 63 NBU Well Locations.

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 921-03BT	T9S, R21E, Sec. 3 NW/NE	None	None
NBU 921-8A4T, 921-8A1S 921-8B4S, 921-9E2S	T9S, R21E, Sec. 8 NE/NE	Pipeline: 400 ft	None
NBU 921-10B4S, 921-10CT 921-10D2S, 921-10G2S	T9S, R21E, Sec. 10 NE/NW	Pipeline: 1000 ft Access: 300 ft	None
NBU 921-11B3S, 921-11B3T 921-11C3S, 921-11C2S	T9S, R21E, Sec. 11 NW/NE	Pipeline: 200 ft	None
NBU 921-11GT	T9S, R21E, Sec. 11 SW/NE	None	None
NBU 921-11HT	T9S, R21E, Sec. 11 SE/NE	None	None
NBU 921-12AT	T9S, R21E, Sec. 12 NE/NE	None	None
NBU 922-12DT	T9S, R21E, Sec. 12 NW/NW	None	None
NBU 921-15C4TS, 921-15D1S 921-15F2S, 921-15G2S	T9S, R21E, Sec. 15 NE/NW	None	42Un2445
NBU 921-15MT	T9S, R21E Sec. 15 SW/SW	None	None
NBU 921-14M3S, 921-15N1S 921-15O3T, 921-22A1S	T9S, R21E Sec. 15 SW/SE	Pipeline: 100 ft	None
NBU 921-16E4S, 921-16F3S 921-16J3S, 921-16L1T	T9S, R21E, Sec. 16 NW/SW	Pipeline: 350 ft Access: 600 ft	42Un6319
NBU 921-20IT	T9S, R21E, Sec. 20 NE/SE	None	None
NBU 921-21E1S, 921-21E4T 921-21F4S, 921-21L1S	T9S, R21E Sec. 21 SW/NW	Pipeline: 3800 ft Access: 100 ft	None
NBU 921-26A4BS, 921-26A1CS 921-25D4AS, 921-25E1BS	T9S, R21E, Sec. 26 NE/NE	None	None
NBU 921-26IT	T9S, R21E, Sec. 26 NE/SE	None	None
NBU 921-27C2AS, 921-27C2D 921-27D2AS, 921-27D2DS	T9S, R21E, Sec. 27 NE/NW	None	None
NBU 921-27HT	T9S, R21E, Sec. 27 SE/NE	None	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 921-27J1S, 921-27J4S 921-27P3S	T9S, R21E, Sec. 27 CT/SE	None	None
NBU 921-27KT	T9S, R21E Sec. 27 NE/SW	None	None
NBU 921-27LT	T9S, R21E Sec. 27 NW/SW	None	None
NBU 921-27MT	T9S, R21E Sec. 27 SW/SW	None	None
NBU 921-27OT	T9S, R21E Sec. 27 SW/SE	None	None
NBU 921-28L4D	T9S, R21E Sec. 28 NW/SW	Pipeline: 100 ft	None
NBU 921-29K4DS, 921-29O1CS, 921-29OT, 921-29P3AS	T9S, R21E Sec. 29 SW/SE	None	None
NBU 921-30FT	T9S, R21E Sec. 30 SE/NW	None	None
NBU 921-31BT	T9S, R21E Sec. 31 NW/NE	None	None
NBU 921-33F SWD	T9S, R21E Sec. 33 SE/NW	None	None
NBU 921-34H SWD	T9S, R21E Sec. 34 SE/NE	None	None
NBU 921-34L SWD	T9S, R21E Sec. 34 NW/SW	None	None
NBU 921-35AT	T9S, R21E Sec. 35 NE/NE	None	None

The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits, which include Paleocene age deposits and Eocene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities. Specifically, the inventory area is situated south of the White River and on both sides of Cottonwood Wash. Elevation ranges from 4680 to 5000 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, and prickly pear cactus. Modern disturbances include livestock grazing, roads, and oil/gas development.

CLASS I RESULTS AND RECOMMENDATIONS

The Class I literature review of Kerr-McGee Onshore's 63 proposed NBU well locations and associated pipeline corridors in Township 9S, Range 21E resulted in the location of two previously documented prehistoric lithic scatters (42Un2445 and 42Un6319) which are evaluated not eligible to the NRHP. Site 42Un2245 has been destroyed by the construction of a previous well pad (NBU 298). Site 42Un6319 will be avoided by the undertakings in Section 16. Based on the findings, a determination of "no adverse impact" is recommended for the undertaking pursuant to Section 106, CFR 800.

REFERENCES CITED

Montgomery, J. A., and C. Roberts
2007 Cultural Resource Management Report for Kerr-McGee Oil and Gas Onshore LP's Greater NBU Blocks in Township 9 South, Range 21 East, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Report No. U-07-MQ-1437.

Patterson, J. J., J. Fritz, K. Lower-Eskelson, R. Stash and A. Thomas
2008 NBU Class I Existing Data Review for Kerr-McGee Oil & Gas Onshore LP, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah.

Stokes, W. L.
1986 *Geology of Utah*. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/01/2008

API NO. ASSIGNED: 43-047-40424

WELL NAME: NBU 921-10G2S

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

PHONE NUMBER: 720-929-6226

CONTACT: KEVIN MCINTYRE

PROPOSED LOCATION:

NENW 10 090S 210E

SURFACE: 0835 FNL 1824 FWL

SWNE BOTTOM: 1340 FNL 2462 FEL

COUNTY: UINTAH

LATITUDE: 40.05557 LONGITUDE: -109.5402

UTM SURF EASTINGS: 624517 NORTHINGS: 4434736

FIELD NAME: NATURAL BUTTES (630)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-0141315

PROPOSED FORMATION: WSMVD

SURFACE OWNER: 2 - Indian

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. WYB000291)

N Potash (Y/N)

✓ Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 43-8496)

N RDCC Review (Y/N)
(Date:)

NA Fee Surf Agreement (Y/N)

NA Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: NATURAL BUTTES

___ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

✓ Drilling Unit
Board Cause No: 173-14
Eff Date: 12-2-1999
Siting: 460 fr Unit & Uncommitted Tract

✓ R649-3-11. Directional Drill

COMMENTS: Sep. Separate file

STIPULATIONS: 1- Federal Approval
2- Oil Shale

API Number: 4304740424

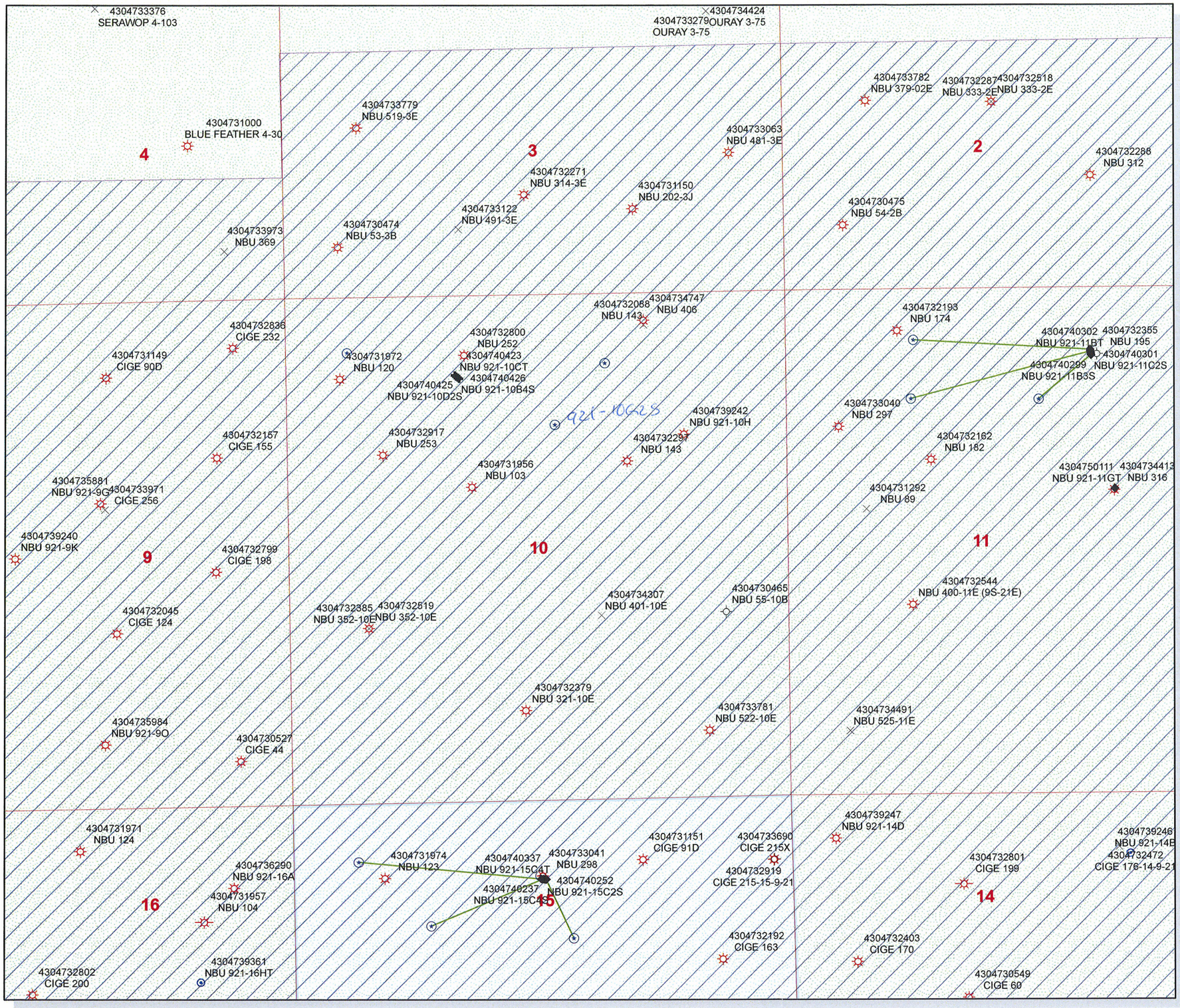
Well Name: NBU 921-10G2S

Township 09.0 S Range 21.0 E Section 10

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason



Units

STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- ACTIVE
- COMBINED
- Sections

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS

1,400 700 0 1,400 Feet

1:12,927

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

December 5, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Wasatch/MesaVerde)		
43-047-40444	NBU 921-10G4S	Sec 10 T09S R21E 1937 FNL 1931 FWL
	BHL	Sec 10 T09S R21E 2158 FNL 1441 FEL
43-047-40445	NBU 921-10F2S	Sec 10 T09S R21E 1877 FNL 1927 FWL
	BHL	Sec 10 T09S R21E 1373 FNL 1959 FEL
43-047-40446	NBU 921-10E3S	Sec 10 T09S R21E 1917 FNL 1929 FWL
	BHL	Sec 10 T09S R21E 2080 FNL 0406 FWL
43-047-40447	NBU 921-10F3T	Sec 10 T09S R21E 1897 FNL 1928 FWL
43-047-40448	NBU 922-29D1T	Sec 29 T09S R22E 0571 FNL 1009 FWL
43-047-40423	NBU 921-10CT	Sec 10 T09S R21E 0811 FNL 1792 FWL
43-047-40428	NBU 921-13CT	Sec 13 T09S R21E 0655 FNL 1920 FWL
43-047-40435	NBU 1022-3B4T	Sec 03 T10S R22E 1022 FNL 1751 FEL
43-047-40434	NBU 1022-2A2T	Sec 02 T10S R22E 0203 FNL 0896 FEL
43-047-40424	NBU 921-10G2S	Sec 10 T09S R21E 0835 FNL 1824 FWL
	BHL	Sec 10 T09S R21E 1340 FNL 2462 FEL
43-047-40425	NBU 921-10D2S	Sec 10 T09S R21E 0799 FNL 1776 FWL

BHL Sec 10 T09S R21E 0543 FNL 0648 FWL

43-047-40426 NBU 921-10B4S Sec 10 T09S R21E 0823 FNL 1808 FWL
BHL Sec 10 T09S R21E 0705 FNL 1929 FEL

43-047-40427 NBU 921-13G2S Sec 13 T09S R21E 0655 FNL 1940 FWL
BHL Sec 13 T09S R21E 1372 FNL 2523 FEL

43-047-40429 NBU 921-13B2S Sec 13 T09S R21E 0655 FNL 1960 FWL
BHL Sec 13 T09S R21E 0488 FNL 2541 FEL

43-047-40430 NBU 921-13D4S Sec 13 T09S R21E 0655 FNL 1900 FWL
BHL Sec 13 T09S R21E 0682 FNL 0912 FWL

43-047-40431 NBU 1022-2B2S Sec 02 T10S R22E 0202 FNL 0916 FEL
BHL Sec 02 T10S R22E 0065 FNL 2075 FEL

43-047-40432 NBU 1022-2A3S Sec 02 T10S R22E 0206 FNL 0857 FEL
BHL Sec 02 T10S R22E 0680 FNL 0820 FEL

43-047-40433 NBU 1022-2A4S Sec 02 T10S R22E 0207 FNL 0836 FEL
BHL Sec 02 T10S R22E 1175 FNL 0315 FEL

43-047-40436 NBU 1022-3A3S Sec 03 T10S R22E 1013 FNL 1734 FEL
BHL Sec 03 T10S R22E 0904 FNL 0822 FEL

43-047-40437 NBU 1022-3C1S Sec 03 T10S R22E 1040 FNL 1787 FEL
BHL Sec 03 T10S R22E 0380 FNL 2354 FWL

43-047-40438 NBU 1022-3B2S Sec 03 T10S R22E 1031 FNL 1769 FEL
BHL Sec 03 T10S R22E 0048 FNL 2516 FEL

43-047-40439 NBU 1022-24O2S Sec 24 T10S R22E 0684 FSL 2016 FEL
BHL Sec 24 T10S R22E 0830 FSL 0690 FEL

43-047-40440 NBU 1022-24P4S Sec 24 T10S R22E 0625 FSL 2002 FEL
BHL Sec 24 T10S R22E 0400 FSL 0635 FEL

43-047-40441 NBU 1022-25G2S Sec 25 T10S R22E 1768 FNL 1502 FEL
BHL Sec 25 T10S R22E 1900 FNL 2025 FEL

43-047-40442 NBU 1022-25G4S Sec 25 T10S R22E 1758 FNL 1443 FEL
BHL Sec 25 T10S R22E 2615 FNL 1955 FEL

43-047-40443 NBU 1022-25G3S Sec 25 T10S R22E 1765 FNL 1482 FEL
BHL Sec 25 T10S R22E 2250 FNL 2065 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:12-5-08

JON M. HUNTSMAN, JR.
Governor
GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

December 8, 2008

Kerr-McGee Oil & Gas Onshore, LP
P O Box 173779
Denver, CO 80217-3779

Re: NBU 921-10G2S Well, Surface Location 835' FNL, 1824' FWL, NE NW, Sec. 10, T. 9 South, R. 21 East, Bottom Location 1340' FNL, 2462' FEL, SW NE, Sec. 10, T. 9 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-40424.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Uintah County Assessor
Bureau of Land Management, Vernal Office

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

Operator: Kerr-McGee Oil & Gas Onshore, LP

Well Name & Number NBU 921-10G2S

API Number: 43-047-40424

Lease: UTU-0141315

Surface Location: NE NW **Sec.** 10 **T.** 9 South **R.** 21 East

Bottom Location: SW NE **Sec.** 10 **T.** 9 South **R.** 21 East

Conditions of Approval

1. **General**

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. **Notification Requirements**

   Notify the Division with 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

3. **Reporting Requirements**

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

6 In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

API Well No: 43047404240000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0141315

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-10G2S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404240000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0835 FNL 1824 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 11/30/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: November 30, 2009

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 11/24/2009

RECEIVED November 24, 2009

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047404240000

API: 43047404240000
Well Name: NBU 921-10G2S
Location: 0835 FNL 1824 FWL QTR NENW SEC 10 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/8/2008

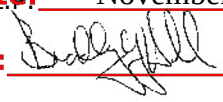
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 11/24/2009
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: November 30, 2009

By: 

RECEIVED November 24, 2009

API Well No: 43047404240000

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0141315

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-10G2S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404240000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779 **PHONE NUMBER:** 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0835 FNL 1824 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/8/2010	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SPUD REPORT Date of Spud:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ DRILLING REPORT Report Date:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 12/13/2010

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 12/8/2010

RECEIVED December 08, 2010

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047404240000

API: 43047404240000
Well Name: NBU 921-10G2S
Location: 0835 FNL 1824 FWL QTR NENW SEC 10 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/8/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Approved by the Utah Division of Oil, Gas and Mining

Signature: Danielle Piernot **Date:** 12/8/2010
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: 12/13/2010

By: 

RECEIVED December 08, 2010

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0141315

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-10G2S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404240000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0835 FNL 1824 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/8/2011	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
☐ SPUD REPORT Date of Spud:	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: 11/30/2011

By:

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE N/A		**DATE** 11/29/2011

RECEIVED Nov. 29, 2011

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047404240000

API: 43047404240000
Well Name: NBU 921-10G2S
Location: 0835 FNL 1824 FWL QTR NENW SEC 10 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/8/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Danielle Piernot **Date:** 11/29/2011
Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED Nov. 29, 2011

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0141315

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 921-10G2S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404240000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6526

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0835 FNL 1824 FWL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENW Section: 10 Township: 09.0S Range: 21.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 12/8/2012	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ DRILLING REPORT Report Date:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	✓ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: November 26, 2012

By: 

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Luke Urban	720 929-6501	Regulatory Specialist
SIGNATURE N/A		**DATE** 11/26/2012

RECEIVED: Nov. 26, 2012

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047404240000

API: 43047404240000
Well Name: NBU 921-10G2S
Location: 0835 FNL 1824 FWL QTR NENW SEC 10 TWNP 090S RNG 210E MER S
Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.
Date Original Permit Issued: 12/8/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- **If located on private land, has the ownership changed, if so, has the surface agreement been updated?** ○ **Yes** ◉ **No**
- **Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?** ○ **Yes** ◉ **No**
- **Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?** ○ **Yes** ◉ **No**
- **Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?** ○ **Yes** ◉ **No**
- **Has the approved source of water for drilling changed?** ○ **Yes** ◉ **No**
- **Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?** ○ **Yes** ◉ **No**
- **Is bonding still in place, which covers this proposed well?** ◉ **Yes** ○ **No**

Signature: Luke Urban **Date:** 11/26/2012
Title: Regulatory Specialist **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

RECEIVED: Nov. 26, 2012

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Green River District
Vernal Field Office
170 South 500 East
Vernal, UT 84078
http://www.blm.gov/ut/st/en/fo/vernal.html

April 4, 2013

IN REPLY REFER TO:
3160 (UTG011)

Julie Jacobson
Kerr McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

Re: Request to Return APD
Well No. NBU 921-10G2S
NENW, Sec. 10, T9S, R21E
Uintah County, Utah
Lease No. UTU-0141315
Natural Buttes Unit

43 047 40424

Dear Julie:

The Application for Permit to Drill (APD) for the above referenced well received in this office on December 1, 2008, is being returned unapproved per your request to this office in an email message to Natural Resource Specialist Tyler Cox received on March 7, 2013. If you intend to drill at this location at a future date, a new APD must be submitted.

If you have any questions regarding APD processing, please contact Robin R. Hansen at (435) 781-3428.

Sincerely,

/s/ Jerry Kenczka

Jerry Kenczka
Assistant Field Manager
Lands & Resource Minerals

Enclosures

cc: UDOGM

bcc: Well File

GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES
MICHAEL R. STYLER
Executive Director
Division of Oil, Gas and Mining
JOHN R. BAZA
Division Director

February 12, 2014

43 047 40424
NBU 921-10G 2S
9S 21E 10

Kerr-McGee Oil & Gas Onshore, LP
P.O. Box 173779
Denver, CO 80217

Re: APDs Rescinded for Kerr-McGee O&G Onshore, L.P., Uintah County

Ladies and Gentlemen:

Enclosed find the list of APDs that is being rescinded. No drilling activity at these locations has been reported to the division. Therefore, approval to drill these wells is hereby rescinded, effective February 12, 2014.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Vernal

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR
OIL, GAS & MINING

43-047-40423	NBU 921-10CT
→ 43-047-40424	NBU 921-10G2S
43-047-40425	NBU 921-10D2S
43-047-40426	NBU 921-10B4S
43-047-40427	NBU 921-13G2S
43-047-40428	NBU 921-13CT
43-047-40429	NBU 921-13B2S
43-047-40430	NBU 921-13D4S